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A syntactic analysis of Arabic language interference in the written English of Saudi female college students

Alhajailan, Dina

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A SYNTACTIC ANALYSIS OF ARABIC LANGUAGE INTERFERENCE IN THE WRITTEN ENGLISH OF SAUDI FEMALE COLLEGE STUDENTS

by
Dina Talal Alhajailan

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ABSTRACT

This study investigated the syntactic errors of the English Noun Phrase (NP) committed by Saudi female students at Princess Noura University. The purpose of the study was to investigate Arabic interference in learning English as a Foreign Language writing. An overview of related literature confirmed the existence of many prior studies finding that Arabic structures interfered in one-way or another with students' English writing. An error analysis (EA) was conducted on 178 student essays based on James' (2013) model, supplemented by a comparative analysis between Arabic and English to find the sources of interlanguage errors. The EA identified, described, classified, and explained errors through a process that included a comparison between interlanguage and intralanguage errors and a detailed classification of errors into the main NP categories and subcategories. A questionnaire was administered to English teachers to find if there was an influence of those errors on text comprehensibility. The results revealed that: correct NPs were more frequent than incorrect NPs; interlanguage errors were more frequent than intralanguage ones; that interlanguage errors were most frequent in Articles, Pronouns, Nouns, and Prepositions; and the sources of NP errors were related to the structural differences between Arabic and English. Finally, the results revealed that most frequent errors did not have a noticeable influence on text comprehensibility.

Keywords: syntax, noun phrase, structure, linguistic errors, EFL, writing, first language interference, error analysis, comparative analysis, interlanguage, intralanguage, text comprehensibility.

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LIST OF STANDARD ABBREVIATIONS

Abbreviation	Word
1	first person
2	second person
3	third person
ADJ	adjective
ADV	adverb(ial)
AGR	agreement
APPL	applicative
ACC	accusative
ART	article
ATT	attributive
C	common
CAS	case
CAT	category
CMP	compound
CNGR	congruence
CNT	count
CONJ	conjunction
DEF	definite
DEM	demonstrative
DET	determiner
DU	dual
GEN	genitive
GNRC	generic
F	feminine
H	head
INDF	indefinite
INSR	insertion
LEX	lexical
M	masculine
MAS	mass
N	neuter
NOM	nominative
NN	noun
NMB	number
NP	noun phrase
NUM	numeral
OBJ	object
OM	omission
ORD	order
PERS	personal
PL	plural
POSS	possessive
POSSR	possessor (not in possessive form)
PRED	predicative
PREP	preposition
PP	prepositional phrase

Abbreviation	Word
PRON	pronoun
PRSP	presupposition
QNT	quantifier
REFL	reflexive
RED	redundant
REL	relative
REP	repetition
SEM	semantics
SG	singular
STY	style
SBJ	subject
SUP	superlative
V	verb
WO	word order

LINGUISTIC SYMBOLS AND CONVENTIONS

Bold	For emphasis or key words in the text
Italic	Signifies illustrative examples
'…'	Represents glosses or translations
"..."	Indicates a verbatim or direct quote
Φ	Signals zero items
~	Denotes 'alternate with; or'
[…]	Used around phrases, e.g., a noun phrase (NP). Bold yellow brackets indicate a correct phrase, such as: **[***my friend***]**$_{NP}$; and bold red brackets indicate an incorrect NP, such as: **[***importants thing***]**$_{NP}$
[=…]	Used to insert words into an original quote. For example, if a quoted example is unclear, words enclosed in square brackets (in addition to the equals sign, or =) are added to clarify the meaning or correct spelling, such as: In "*Don't choose major [=subject] you have no idea about*", it is used to clarify meaning. In "*Shopping is a habbit [=habit]"*, it is used to show the correct spelling of a word misspelled in the original text.
(…)	Used to denote a subordinate clause, for example: "*a big city (that has many places)*"
*	Signals potential error
Red highlighting	Indicates error(s) under discussion, to distinguish them from other errors that might be present
( ) Red parentheses	Indicates errors of: • Addition (an item is given where it does not belong). For example: "*all problems in (the) life has a solutions*" • Deletion (a required item is not given). For example: "*They have ( ) new collection every week*" • Red highlighting with no brackets indicates other types of errors, such as misselection of one word or an affix for another. For example: "*Some of this problems should solved by university*". Brackets are also not used for misordering errors, such as: "*the language English*"

CHAPTER 1: INTRODUCTION

1.1. Introduction

This dissertation reports on research into noun phrase (NP) errors in the written English of Arabic-speaking learners of English as a Foreign Language (EFL) in Saudi Arabia. The dominance of English in contemporary global communication has resulted in English being included in the educational curricula of many countries (Alghizzi, 2017; Al-Jarf, 2008; Roux, 2014; Swales, 2004). In Saudi Arabia, as in most Arab countries, EFL is now a compulsory subject in all public education institutions and universities (Al-Khairy, 2013). Recent extensive research, however, suggests that the goals of this policy are not being achieved. Researchers have found that Arab learners' English-language proficiency is generally weak and impedes their academic progress (Al-Khairy, 2013; Bacha, 2002; Khalil, 2000; Kharma & Hajjaj, 1997; Rabab'ah, 2003; Tahaineh, 2010). In particular, Al-Khairy (2013) draws attention to learners' low proficiency in writing skills, including the occurrence of frequent grammatical errors.

Richards (2014) proposes that errors by second-language learners can be classified as two kinds: interlanguage errors (between languages) and intralanguage errors (within the same language). Interlanguage errors (*linguistic interference*) are caused by carrying over structures and patterns from the first language (L1) into the second language (L2) (Hussein & Mohammad, 2011; Lado, 1964; Selinker, 1972). Intralanguage errors are the result of inappropriate generalization of L1 linguistic patterns (including structural patterns, which are the focus of this research) within the L2 (Richards, 2014). L1 interference has been found to be a significant obstacle to learning a second language (Alhassan, 2013; Knapp, Seidlhofer & Widdowson, 2009; Richards, 2014) and is the main source of learners' linguistic errors (Ngangbam,

2016). Intralanguage errors, by contrast, are much less frequent (Alhaysony, 2012; Amara, 2015). Interference is particularly likely to occur if the L1 and L2 are structurally very different (Bhela, 1999), as is the case with Arabic and English (Al Fadda, 2012; Hourani, 2008; Ngangbam, 2016). Interference is a critical problem in L2 writing, which is one of the most difficult skills for L2 learners to master (Richards & Renandya, 2002, p. 303), because students need to pay attention both to composing, developing, and analysing ideas as well as to expressing them following the structural, orthographic, and lexical norms of the L2 (Myles, 2002, p. 16). The problem is greatest in academic writing (Al Fadda, 2012; Almubark, 2016).

This research employed error analysis (EA) to identify the nature and frequency of syntactic errors made in EFL students' writing of noun phrases (NPs) that are caused by interference from their L1 (Arabic) in their L2 (English), and in particular those errors that impede the comprehensibility of the text. A comparative analysis (CA) of specific structural elements in the two languages provided the basis for classifying and explaining such errors.

1.2. General Background and Terminology

1.2.1. *First Language Acquisition and Second Language Learning*

One's native language (NL) is one's mother tongue (MT); "the first language a human being learns to speak is his native language; he is a native speaker of this language" (Bloomfield, 1933, p. 43). This definition associates a native speaker with a mother-tongue speaker (Gass & Selinker, 2008). Saville-Troike (2012) adds that one's first language is one's native language, acquired as a child and transferred from one generation to the next. The issues around determining native or mother-tongue speaker, and which is an L1 and an L2, are, of course, considerably more complex

(e.g., Hackert, 2017; Richardson, 2017; Saracenei, 2019), but for the female students who provided the data for the current project, the terms *mother tongue*, *native language* and *L1* are appropriate because they adequately describe the language status. Meanwhile, the terms *second language* and *foreign language* (FL) refer to a language that is not a person's first language or mother tongue; it is a language learned in addition to the acquired mother tongue (Brown, 2000; Gass & Selinker, 2008).

1.2.2. *Foreign Language Learning (EFL vs. ESL)*

English as a Foreign Language (EFL) is one of the largest fields of study in the world (K. Johnson, 2008). It is also known as English as a Second Language (ESL). EFL and ESL have only slight differences. The terms *foreign language* (FL) and *second language* (L2) refer to a language that is not a person's L1, but is learnt in addition to it (Brown, 2000). There are four main differences between EFL and ESL. Firstly, in EFL, English is studied by speakers of a different L1, while in ESL it is studied alongside the native language (Abdullah, 2011). For example, in Saudi Arabia, English is studied as a foreign language because it is not widely used in society but it is learned in schools. By contrast, English is considered a second language in other countries, such as India, Malaysia, and Nigeria (all previously British colonies), because it is widely used in society and for business (Thirusanku & Yunus, 2012), especially between members of different language communities.

Secondly, EFL learners will experience English only in a classroom, while ESL learners are more exposed to communication in the second language and thus get more opportunities to apply what they have learnt (Gass & Selinker, 2008; Thirusanku & Yunus, 2012).

Thirdly, a class of EFL students will usually all be from the same country, while an ESL classroom will contain learners from different countries.

Fourthly, EFL students learn the language for academic purposes, e.g., using the language as an instrument to reach an objective (Ehrman, 1996, p. 193), while most ESL learners learn English for communicative purposes, mostly to integrate in an English-speaking country (Gardner, 1985, p. 54).

The EFL field is growing very quickly in Saudi Arabia due to the demand for competent speakers and writers of English. This situation has created a demand for English-language teachers and offers increasing opportunities for those Saudis who attain communicative skills in English (Mahboob & Elyas, 2014; Tahaineh, 2010).

1.3. The Empirical Problem and its Significance

English has long been of significant interest in Saudi education (Al-Jarf, 2008). The main purpose of Saudi education is to supply the learner with the necessary skills and knowledge to help develop their behaviour in positive ways, in order to benefit the society economically, socially, and culturally, and to prepare the individual to become a useful member in the building of their community (Saudi Ministry of Higher Education, 1980). As a result, one of the main goals related to EFL learning is to develop English proficiency in students as a way of acquiring and transferring knowledge in the fields of sciences, arts, and innovation, in an effort to contribute to the spread of the faith of Islam and to serve humanity (Elyas & Badawood, 2015). In order to provide support for the declared educational policy, Saudi universities have, since the onset of higher education in the country, designed programmes for training English-language teachers and translators (Princess Nourah University, 2017).

Princess Nourah University (PNU)—the setting of this study—is among those universities that foster the provision of high-quality education for the empowerment of Saudi women interested in the field of teaching English and translation. The College of Languages at PNU was established by a royal decree on October 9, 2007 (PNU, 2017). The objectives of the English Department in the College of Languages are concentrated on helping students achieve proficiency in all the basic English-language skills, namely listening, speaking, reading, and writing, in addition to other supportive courses, e.g., English literature, translation, and Arabic composition (PNU, 2017). Writing English is regarded as the more demanding productive skill versus the receptive skills: listening and reading (Nunan, 1999; Yan, 2005), and is assumed to demonstrate command of other skills (Phuket & Othman, 2015; Richards & Renandya, 2002).

Despite those priorities stated above, the average level of achievement in English-language learning skills of Saudi Arabian EFL learners is low, especially in writing (Al-Eid, 2000; Alghizzi, 2017). The learners' achievement has consistently failed to attain the standards set by the Saudi Ministry of Higher Education, which has expressed serious concern about improving students' performance, including reducing the number of persistent errors made by L2 learners (Al-Khairy, 2013; A. Mohammed, 2005). Like many universities in Saudi Arabia, PNU is devoting considerable efforts to meeting higher standards of English learning, especially for students who specialize in English. There is, however, a lack of empirical research on which to base pedagogical strategies to achieve this aim. To date, most of the strategies developed to improve EFL learners have been based on either anecdotal evidence, such as personal judgements by students, teachers, and the media, or on partial research evidence concerning a few specific linguistic components, e.g., article

usage, such as that analysed by Alhaisoni, Gaudel, and Al-Zuoud (2017) and Alhaysony (2012), or preposition usage, such as that examined by Lakkis (2000) and Tahaineh (2010). By contrast, this study looks more broadly at all errors within a specific portion of syntactic phrase structure, namely the NP. Moreover, my own experience of teaching Saudi female university students, and personal communication with decision-makers at PNU, indicate that a much greater degree of comprehensive research and systematic analysis of the students' writing is needed to identify the precise nature and causes of persistent errors, before specific teaching strategies can be developed to address them. One reason for the paucity of research in this area, particularly in the writing of female EFL students, is the shortage of female researchers in linguistics, as women professional researchers were first introduced into higher education in Saudi Arabia only in the late 1970s (Alaugab, 2007).

There is a considerable body of research into interference in second language learning. Karim and Nassaji (2013) studied first-language transfer in second-language writing, and found that the L1 has an effect on writing in the L2. They found that the degree of influence depends on the degree of difference between the two languages. The Arabic and English languages have many distinct differences, and these differences are seen to cause difficulties for Saudi students (Hourani, 2008; Ngangbam, 2016). Saudi EFL learners suffer from weaknesses in writing English at a structural level (Alkubaidi, 2014; Baka, 2013), and specifically at the sentence (phrasal) level (Al-Khairy, 2013). Because writing is a complex process, Saudi students have further writing difficulties in organization, capitalization, grammar, prepositions, syntax, punctuation marks, and suffixes and prefixes (Sawalmeh, 2013; Siddiqui, 2015; Younes & Albalawi, 2015). Most importantly for the current study,

Saudi students' writing errors indicate the interference of Arabic in their EFL writing (F. Ahmed, 2016).

This research intended to contribute to the current literature on L1 interference in the L2, focusing on errors in the noun phrase (NP). There were four main reasons for this: 1) it used error analysis to identify the most frequent syntactic errors within the NP in EFL writing in Saudi Arabia, and sought to explain the sources of these errors through contrastive analysis; 2) a questionnaire study investigated whether there was a relationship between the frequency of L1 interference errors and the magnitude of their influence on text comprehensibility; 3) the methods used in gathering and analysing the data focused not only on errors made by individual students, but also sought to achieve a wider understanding of the commonly occurring errors that most students make by describing those errors and explaining the reasons for committing them; 4) finally, the findings of this research were intended to initiate debate and lead to the formulation of policy related to raising the standard of EFL teaching in Saudi Arabia, and perhaps even in other countries.

1.4. Research Questions

This dissertation addresses the following questions:

1. What are the syntactic NP errors made by Saudi female students in EFL writing?
2. Which of these errors can be attributed to interlanguage interference, and which to intralanguage effects?
3. What are the frequencies of the interlanguage errors across the different classifications (linguistic categories, subcategories, and surface structure taxonomies [SSTs])?

4. Which of the most frequently occurring types of interlanguage errors have the greatest influence on comprehensibility?

1.5. Outline of the Dissertation

This chapter has introduced the research aim of investigating the role of errors in teaching and learning EFL writing in Saudi Arabia. At first, the problem of low achievement and persistent student errors in EFL writing at PNU has been presented and explained. Thereafter, the main research question has been introduced, i.e., what are the syntactic errors within the NP made by Saudi female students in EFL writing? Finally, the need for the study has been explained, in that, when students consistently make certain similar errors, there is a problem that needs to be solved.

Chapter 2 will review relevant literature on the four components of the research: the phenomenon of interference; errors in developing the skill of L2 writing; the two main tools used in the linguistic analysis; and a summary of research over the last two decades on error analysis in relation to EFL writing in Saudi Arabia.

Chapter 3 will present a comparative analysis of relevant English and Arabic language structures to provide a basis for understanding what constitutes an L1 interference error between these languages.

Chapter 4 will discuss the research methods used, including reasons for their selection; the population being studied; and the sampling method that was employed. It will introduce the research tools used and the data-collection procedures. This will be followed by the error analysis itself, including classification of errors; comparison of their frequencies; and a discussion of whether the most frequent errors have a greater influence on the incomprehensibility of the text.

Finally, Chapter 5 will offer a discussion of the results, associating them with previous research findings; following that, Chapter 6 will discuss the implications and inferences of this research that will propose some suggestions for PNU actions and recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter provides an in-depth review of the literature on L1 interference in EFL writing. Section 2.2 focuses on crosslinguistic influence (CLI) in second language (L2) learning. Section 2.3 defines 'error' and reviews the literature on errors in EFL writing, along with a description of the most common reasons for EFL students' writing errors and a discussion of common error typologies, such as the distinction between intra- and interlanguage errors. Section 2.4 provides a detailed account of two major tools used in research on L2 learners' errors—namely, Comparative Analysis (CA) and Error Analysis (EA). In Section 2.5, a review of relevant EA research into EFL syntactic errors in writing is provided, with a focus on syntactic errors. Finally, Section 2.6 offers a review of the literature on error comprehensibility. The chapter concludes with a discussion of salient topics that arise from the literature review and contextualizes the present study against this background.

2.2. An Overview on CLI in L2 Learning

Scholars of second language acquisition (SLA) define cross-linguistic influence (CLI) as acquisition of any language other than the mother tongue, or L1. In the abundant research on CLI (e.g., Arabski, 2006; Bussmann, 1996; Jarvis, 2000; Odlin, 2012), the term 'cross-linguistic influence' is frequently used interchangeably with several other terms, such as 'interference' and 'language transfer' (Jarvis, 2017, p. 14; Jarvis & Pavlenko, 2008, p. 4). The notion of language transfer is not new in the SLA field, as studies on this phenomenon emerged as early as the 1940s and 1950s in the work of Fries (1945) and Lado (1957). L1 transfer is conventionally

defined as the influence of L1 on the acquisition of any subsequent language (Gass & Selinker 2008; Jarvis, 2000; Lado, 1957; Odlin, 1989). When the language systems of L1 and L2 are similar, transfer yields correct production in L2 (Arabski, 2006), so it is deemed to have a positive impact on second language acquisition; in contrast, whenever there are substantial differences between L1 and L2, the transfer is assumed to be negative, as it can lead to linguistic errors (Bussmann, 1996).

However, recent research on SLA has reveal a more complex picture of how CLI, or language transfer, influences second language acquisition. In this body of research, CLI is assumed to interact with other factors. For instance, as argued by Jarvis and Pavlenko (2008, p. 106), the following five groups of factors interact with and influence CLI: (a) linguistic and psycholinguistic factors; (b) cognitive, attentional, and developmental factors; (c) factors related to cumulative language experience and knowledge; (d) factors related to the learning environment; and (e) factors related to language use . Furthermore, Ringbom and Jarvis (2009, p. 106) argued that, although much of L2 research focuses only on the differences between L1 and L2, as well as on their impact on second language learning, similarities between languages may have a much more direct effect on language learning. To accommodate these conflicting views, Jarvis (2000, p.246) presented a unified framework to identify the influence of L1 on transfer to L2; in later work, he developed this framework to account for all external effects, to be controlled for in a rigorous investigation of L1 transfer (Jarvis, 2010, 2017; see Section 2.2.3 for further detail). This research acknowledges previous and recent research in CLI, but focuses on negative transfer (i.e., L1 interference in L2) in investigating linguistic errors in writing.

2.3. Errors in Language Learning

2.3.1. *Definition of 'Error'*

In language use, errors are seen as deviations from linguistic norms. Corder (1975) defined errors as "features of the learner's utterances which differ from those of any native speaker" (p. 260). Brown (2000) explained that they indicate clear nonconformity with target language grammar. In other words, linguistic errors are seen as unsuccessful bits of language (James, 2013) produced by learners, and are considered as "disagreements with the syntactic rules" of a language (Ngangbam, 2016, p. 1). In addition, errors are a systematic and frequent feature of language learning (Gass & Selinker, 2008, p. 102). Furthermore, they are especially frequent in EFL learning (Bataineh, 2005), particularly when the structures of the two languages are very different (Nemati & Taghizade, as cited in Derakhshan & Karimi, 2015, p. 2115). For example, in the case of Arabic-speaking EFL learners, L1 interference causes syntactic errors because the two languages (English and Arabic) are structurally different (Algeo & Butcher, 2014). Another characteristic of errors is that they tend to be persistent, particularly when most students make the same error, so it would be useful for teachers to draw students' attention to these errors and devise means to avoid them (Lightbown & Spada, 2013). In conclusion, errors occur as a result of the learner's lack of knowledge or unawareness of the correct rule or structure of the target language (Ellis, 2008).

2.3.2. *Errors in EFL Writing*

Although EFL writing receives a lot of attention in Arab higher education institutions, research shows that learners in these institutions have a low level of achievement in EFL writing, and tend to make numerous errors (Al-Jarf, 2008; Khalil, 2000; Musa, 2010; Rabab'ah, 2003; Tahaineh, 2010). Alsamadani (2010) stated that

writing is a challenging and difficult process for Arab learners, as it involves mastering several skills quite divergent from those of L1 norms. These include, for example, forming a text, writing a topic sentence, creating supporting ideas, reviewing details, and editing the product. The difficulty for Arab learners in writing English lies in their previous L1 writing habits. Sentences are affected by structures transferred from the Arabic writing style (Alsamadani, 2010). For example, topic sentences and concluding statements in Arabic are more or less identical (A. Ahmed, 2010; Al-Jarf, 2008). In addition, native Arabic speakers writing English often "beat around the bush" or repeat phrases before stating the main point (Javid & Umer, 2014; Rabab'ah, 2003). These findings are consistent with those of other studies investigating the effects of L1 in L2 writing (Al-Khasawneh, 2014; Dweik & AlHommos, 2007; Zawahreh, 2012).

Saudi students tend to make errors in their writing, and those errors are generally attributable to L1 interference, overgeneralization, and/or insufficient practice of basic techniques of writing in English (F. Ahmed, 2016). Saudi university students face a number of difficulties when writing EFL (Alkubaidi, 2014; Baka, 2013; Hourani, 2008; Shukri, 2014). Among those difficulties are problems with organization, punctuation marks, capitalization, prefixes and suffixes, prepositions, grammar, and syntax (Richards & Renandya, 2002; Sawalmeh, 2013; Siddiqui, 2015; Younes & Albalawi, 2015). Additionally, when assessing Saudi students' writing samples, instructors notice that they often lack competence in grammar (Almubark, 2016; Ankawi, 2015). Moreover, Saudi undergraduates are weak in academic EFL writing specifically, both at the sentence level and when they write paragraphs (Al-Khairy, 2013). Based on the above problems, error analysis (EA) has been found to be

beneficial in systematically analysing the learners' linguistic performance to find and explain errors (Heydari & Bagheri, 2012).

2.3.3. *Reasons for EFL Students' Writing Errors*

In order to identify the sources of L1 errors, recent literature on CLI has sought to address the confusion arising from methodological differences in previous studies. For example, Jarvis (2000, 2010) proposed a comparison-based framework of four evidence types—namely, intragroup homogeneity, intergroup heterogeneity, intralanguage contrasts, and cross-language congruity (Jarvis, 2017, p. 17); the first two are group-based (comparison within a language group and between language groups) and the second two are source-based (within a language and between languages comparison). By offering "a way to achieve higher levels of methodological rigor in the investigation of crosslinguistic influence" (Golden, Jarvis, & Tenfjord, 2017, p. 5), this methodological innovation requires evidence data to compare groups and languages. Applying this framework may help to control external effects and provide evidence to determine disputed classification issues, such as borderline errors (interlanguage or intralanguage). Upon the introduction of this framework, CLA research has entered another era of complexity (see Golden et al., 2017; Jarvis, 2000, 2010; Jarvis & Pavlenko, 2008; Ringbom & Jarvis, 2009) that can be called an era of "both intensive and extensive investigations revolving around questions and hypotheses that were not addressed due to the lack of necessary knowledge and tools" (Jarvis, 2017, p. 18). In this new paradigm, the sources of L2 errors have come to the spotlight in research on the effects of language transfer.

Overall, in the EFL literature, there is general agreement that the main error types are inter- and intralanguage errors (Chelli, 2013; Corder, 1975; James, 1998). Chelli (2013, p. 4) defined interlanguage errors as "errors attributed to the native

language," which is considered to be a negative transfer, while intralanguage errors were defined to arise "due to the language being learnt (target language), independent of the native language", which can also be referred to as developmental errors. Furthermore, Corder (1975, as cited in AbiSamra, 2003) proposed the following three sources of errors: (1) L1 language transfer (i.e., interlanguage errors); (2) overgeneralization of L2 rules (within the target language, i.e., intralanguage errors); (3) "teaching-induced error", i.e., errors caused by inappropriate teaching methods or materials. Furthermore, James (1998) suggested a slightly different classification, identifying the following three main error sources for L2 learners: (1) interlanguage (interference of L1 in L2); (2) intralanguage (errors in L2 learning); and (3) errors arising from learning strategies and communication strategies. Within the third category of error sources in James' (1998) classification, learning strategy-based errors were deemed to be caused by false analogies, misanalysis, incomplete rule application, exploiting redundancy, overlooking co-occurrence restrictions, hypercorrection, overgeneralization, or system simplification. In contrast, communication strategy-based errors were argued to arise when L2 learners apply holistic or analytic strategies. In summary, despite the diversity of approaches to classifying the types and sources of L2 errors, most EFL scholars agree that inter- and intralanguage errors constitute the two main error types. Section 2.3.4 will discuss these two error categories in further detail.

2.3.4. *Types of Errors: Interlanguage and Intralanguage Errors*

Errors are defined as deviation from native speakers' forms in the target language or as unsuccessful fragments, not conforming with the target language. Richards and Schmidt (2010) defined such deviation as a result of incomplete knowledge in the L2 learning process. Selinker (1972) and James (2013) described

those unsuccessful and non-conforming errors, in general, as products of the learner's struggle to construct L2 linguistic forms (McLaughlin, 1987). As seen in the previous section, researchers (Chelli, 2013; Corder, 1975; James, 1998; Kaweera, 2013; Mohammed, 2005; Phuket & Othman, 2015; Richards, 2014) identified two major sources of errors: interlanguage errors (resulting from L1 interference); and intralanguage errors (reflecting an incorrect generalization of rules within L2).

Interlanguage errors are examples of L2 learners' language (Selinker, 1972) where learners tend to resort to prior knowledge (L1 structure) when they do not know how to express themselves in the L2 (James, 1998). For example, Mohammed (2005) states that EFL learners commit serious interlanguage errors because they depend heavily on their L1. Al-Jarf (2000) adds that Arab EFL learners tend to commit interlanguage errors more often than intralanguage ones, a view supported by Amara (2015), who asserts that the majority of errors committed by Arab EFL learners can be attributed to L1 interference.

Intralanguage errors, on the other hand, occur within the L2 as a result of inappropriate generalization from one structure to another (Richards, 2014). They are also called "developmental errors", and are described as resulting from incomplete and insufficient knowledge of the L2 or wrong application of L2 rules (Kaweera, 2013; Richards, 2014). Accordingly, intralanguage errors are not *associated with* but are *within* the target language (TL) itself, as those errors are developed during the normal learning of a target language. As a result, EFL learners' individual development depends on how much they are progressing and becoming competent in the L2.

Interlanguage and intralanguage errors are similar in terms of their outcome during the process of L2 learning, but differ in their causes (Heydari & Bagheri, 2012;

James, 1998; Richards, 2014; Schachter & Celce-Murcia, 1977). Heydari and Bagheri (2012) claimed that, whilst learners in the early stages of the EFL learning process tend to commit a lot of interlanguage errors, as they progress in learning the L2 they commit more intralanguage errors. Interlanguage errors most commonly arise from the native language (NL), and are results of L1 interference, while intralanguage errors are caused during the process of learning the L2 itself, and specifically result from insufficient knowledge of the target language (TL)(James, 1998; Richards, 2014; Schachter & Celce-Murcia, 1977). Typically, errors that are not considered interlanguage (due to L1 interference) are intralanguage errors resulting from L2 (James, 2013). In this framework, Richards (2014) reported that, "the learner creates a deviant structure based on his experience of other structures of the target language" (p. 206). Learners then try to develop analogies to decide how to use a certain form or structure; if they cannot do it correctly, they imitate a form they know in L2. According to my experiences teaching EFL, EFL learners at all levels (including the advanced level) usually tend to rely on their previous knowledge of L1 or imitate similar structures in L2 in their attempts to demonstrate their competence in English.

Interference of L1 in L2 has always been a problem in learning EFL, yet it becomes even more acute when the two languages differ widely (Benson, 2002; Derakhshan & Karimi, 2015; Lado, 1964). Lado (1957) adds that learning becomes more complicated as those differences appear in learners' application of first language (L1) rules in producing utterances in the second language (L2), thus creating linguistic interference errors. Several researchers (Adams, 1978; Alhassan, 2013; Al-Zoubi & Abu-Eid, 2014; Knapp et al., 2009; Richards, 2014; Yang & Xu, 2001) have found that interference is not only one of the major obstacles in L2 learning, but also the main source of such interference errors (Al-Khasawneh, 2014; Ngangbam, 2016).

Therefore, the present study plans to investigate the underlying reasons for those errors.

Interference becomes even more problematic when it comes to arguably the most complex skill in language learning: writing (Al-Khairy, 2013; Kaweera, 2013). Richards and Renandya (2002) asserted that "writing is the most difficult skill for L2 learners to master" (p. 303). They added, "[t]he difficulty lies not only in generating and organizing ideas, but also in translating these notions into legible text" (Richards & Renandya, 2002, p. 303). Consequently, in the domain of writing, L1 interference adds more complexity to a task that is already challenging (Horning, 1987). As seen above, students face interference problems with L2 learning in general, but interference is particularly obvious and clearly documented in relation to the learning of writing skills (Horning, 1987; Richards & Renandya, 2002). The following section will discuss tools used in analysing students' errors.

2.4. Linguistic Tools Used in Analysing Errors

Linguists have designed two main tools to analyse students' foreign language skills and to identify the reasons behind the errors they make when learning a second language. The first tool, contrastive analysis (CA), is a deductive approach associated with the behaviourist school, as described below. CA is based on the assumption that identifying differences between L1 and L2 enables learners and teachers to predict situations where errors are likely to occur (Fischer & Fischer, 1979; Gedion, Tati, & Peter, 2016). The second tool, error analysis (EA), is an inductive cognitivist approach that assumes that L2 learning is similar to L1 acquisition and that errors are natural occurrences (Corder, 1967). EA is based on the idea that analysing students' errors will lead to knowledge about L2 learners' progress (Crystal, 2004). Although both CA and EA are tools constructed to analyse L2 data, they start from different

principles, pursue different aims, and employ different techniques. EA identifies errors that occur in the learner's language (James, 2013), and compares them with the target language, while CA simply compares L1 with the target language (James, 2013). This means that EA is a useful tool to identify and locate errors, while in this research, CA was also applied to explain L1 interference errors.

2.4.1. *Contrastive Analysis (CA)*

Contrastive analysis (CA) is a method that distinguishes between what learners need and do not need to know in learning another language, by comparing the NL with the second or foreign language (Gass & Selinker, 2008). It is devoted to finding similarities and differences between two languages (James, 1990; K. Johnson & Johnson, 1999). Lado (1957) suggested that CA is a design for language study that includes language description, comparison, and prediction of the difficulties that learners may face while acquiring the second language. Lado (1957) also suggested the term "contrastive analysis", as he claimed that similarities between the two languages support learning, while differences cause difficulties. Whenever the structure of the L2 differs from that of the L1, difficulty in learning and errors in performance are expected (Wilkins, 1972). According to Brown (2000), the objective of CA is to explain the interference of the first language system in second language learning. It took researchers twenty years to begin to test what Fries (1945) suggested were the expected results of a CA:

> The most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner. (p. 9)

The definition of CA summarizes the scope of this tool's three main features: studying the differences and similarities between L1 and L2; describing, comparing

and predicting the difficulties; and putting the results under scrutiny to explain those difficulties. It is generally agreed that CA functions well as a methodology when searching for the sources of difficulties for L2 learners (Gluth, 2003).

The central idea of behaviourist psychology is that human behaviour should be described in terms of observable interactions and associations between stimuli and responses (Gass & Selinker, 2008). The theory claims that the establishment of habits is a result of reinforcement and reward (Rivers, 1968, p. 75). The major principle of behaviourist theory is that learning is a mechanical process of habit formation (Brooks, 1960) that develops through conditioning and stimulus-response (Palermo, 1978). Positive reinforcement rewards acceptable responses, while negative reinforcement is a punishment meant to discourage unacceptable responses. These two forms of reinforcement can encourage language learners to form good habits.

In the field of education, the application of behaviourist theory resulted in educators adopting its strategies for habit-formation through repetition and reinforcement. Educators further noticed that knowledge of the similarities and differences between the L1 and L2 could enhance and strengthen learning (Fries, 1945; James, 1998; Lado, 1957). During the 1960s and the early 1970s, researchers in the field of Second Language Learning (SLL) used CA to improve language instruction. For example, Lado (1957) claimed that while acquiring a second language, learners tend to compare the elements or systems in their native language and the target language. Following this theory, educators employed diverse strategies such as repetition and reinforcement drills to form new habits in language learners; they hoped to help learners avoid the difficulties they often face during their study of a foreign language.

2.4.1.1. Merits and demerits of CA

There are two main purposes of CA: to compare and contrast learners' L1 with L2 (Fries, 1945); and, based on the results (similarities or differences), make predictions regarding the errors that learners will make (Ammar & Lightbown, 2005; Kim, 2001). These purposes assume that the difficulties learners face in L2 are all, or largely, a consequence of the differences between the L1 and the L2 (James, 1998). As mentioned before, Lado (1957) suggested a set of procedures that involve describing and comparing languages to predict learning difficulties. He added that CA is useful in three ways: explaining errors; drawing on the frequent errors made by L2 learners in order to prepare adequate materials for them; and helping to find ways to teach learners to avoid errors (Lado, 1957). In short, CA assumes that errors have only one cause, namely influence from the L1.

CA has faced a great deal of criticism, both as it relates to behaviourism as a school of thought, and as it applies to second language acquisition in particular. In relation to CA as a methodology for analysing the process of language learning, Hughes (1980) criticized CA because this approach takes too narrow a view of the problem of errors, focusing only on 'L1 interference,' rather than adopting a more expansive understanding of the variety of errors language learners make. Similarly, Abbas (1995) supported the idea that CA's basic weakness lies in its overwhelming emphasis on one type of error: interference errors.

Furthermore, Lightbown and Spada (2013) criticized CA for predicting many errors that were inexplicably not observed in the language use of L2 learners. Rivers (1970) added that language teaching guided by CA presents the learner with only parts and fragments of the L2, since it is driven by a comparative approach to language learning. A CA methodology concentrates on some elements of the L2 and

neglects others and, as a result, the learner acquires only some elements instead of learning the whole language system. Further, Schachter (1974) criticized CA for its applicability in homogeneous, not heterogeneous, language backgrounds; when students speak L1s that do not belong in the same language family, they cannot benefit from the same method, as their L1s differ from the L2 in multiple ways. The above shortcomings in CA were avoided in this study by choosing a homogeneous sample of native Arabic speakers learning English as a foreign language, thus allowing me to concentrate on describing and comparing the two languages, while referring to major grammatical references in both English and Arabic.

Although there is much criticism of CA owing to its inability to predict a variety of errors (Gluth, 2003), it can help to pre-identify probable areas of difficulty for L2 learners (James, 2013). A detailed CA of the construction under investigation in this research is presented in Chapter 3, and it forms the basis of the data analysis in Chapter 4.

2.4.2. *Error Analysis (EA)*

Error analysis is the other framework widely adopted in the study of L2 learning, specifically in relation to L2 writing errors (Crystal, 2008; Jabeen & Mustafai, 2015). It was developed during the 1950s and 1960s as a reaction to some of the shortcomings of CA outlined above (Keshavarz, 1999). Crystal (1999) defined EA as the study of language forms that deviate from those of the L2. James (1998) added that EA analyses learners' errors through a comparison of what the learners have achieved with what they were supposed to achieve (how well they met the educator's intended learning outcomes). Corder (1967) defined EA as an analytical tool that focuses on samples of the learners' language to identify the linguistic errors they commit, describe them, and evaluate their seriousness. In this way, Corder

(1975) identified two objectives of EA: a theoretical and a practical objective. EA's theoretical objective is concerned with what and how learners acquire a second language; the practical objective is directed towards helping students to take advantage of the knowledge they already have in order to learn an additional language. Dulay, Burt, and Krashen (1982) also focused on the practical application of EA as a method to analyse EFL language errors in order to reveal students' language learning strategies, which ultimately contributes to improved teaching.

EA is closely associated with interlanguage theory (Ellis & Barkhuizen, 2005), which states that L2 learners construct their own version of the second language that is different from native speakers'; their version of the L2 contains some L1 features, while also overgeneralising some L2 rules (Selinker, 1972). EA has been extensively applied to understand errors made by EFL learners in particular (Alhaysony, 2012). The tool stresses the significance of errors in EFL learning as points of information useful for educators and researchers to reflect on the learner's development (Corder, 1967). As a result, EA can inform the teacher's feedback and correction of student's individual errors, while helping to build supportive classrooms that motivate all learners to learn (Akhter, 2011; Crystal, 2001).

These definitions offer a multifaceted understanding of EA as a tool that analyses learners' linguistic errors; describes, explains, and classifies their errors in order to assess the learners' achievement; provides a theoretical framework to teachers for language acquisition; and offers practical solutions for teachers.

2.4.2.1. Merits and demerits of EA

As a methodology to investigate L2 learners' errors, EA has several important advantages. According to James (2013), one of the aims of EA is to eliminate—or at least minimize—errors. EA is based on accumulating data about the problems or

difficulties L2 learners encounter during their L2 learning process (Khansir, 2012); in this respect, EA assumes that frequencies of specific errors provide evidence of such difficulties. Additionally, EA provides researchers with new ideas or suggestions to modify teaching and learning (Ellis, 2008). Furthermore, one of the major outcomes of EA is that it locates and explains both interlanguage and intralanguage errors (Richards & Schmidt, 2010). In addition, it mainly focuses on students' productive skills of speaking and writing, as they can be recorded and documented, and not on their receptive skills of listening and reading (Cleland & Pickering, 2006; Ellis, 2008). As a diagnostic tool, EA allows L2 educators to more systematically collect error feedback, which raises their awareness about students' difficulties and allows them to modify their teaching methodology, leading to better EFL learning outcomes (Vasquez, 2008).

However, despite the strengths of EA outlined above, this methodology also has several limitations. For instance, while focusing only on learners' language production, EA overlooks some important features of learners' competence that may not be apparent, such as when L2 learners avoid using more difficult L2 structures. Situations when L2 learners use only those structures they are certain about and, thus, for psychological reasons, avoid using the structure they are not certain about (Kleinmann, 1977), are referred to as the avoidance phenomenon (Schachter,1974). This phenomenon inhibits L2 learners' mastering more complex language. In this respect, contrastive analysis—another widely used methodology to study L2 learners' errors (see Section 2.3.2)—may be more informative, as it can predict some difficulties that L2 learners may encounter.

Furthermore, EA also has several practical limitations. First, EA considers only the errors—but not the correct usage—of L2 learners (Brown, 2000; Gass &

Selinker, 2008; Larsen-Freeman & Long, 1991; Schachter & Celce-Murcia, 1977). Second, in EA, errors are described with regard to the target language; however, in some cases, it can be difficult to identify an error and what constitutes it (Gass & Selinker, 2008; Schachter & Celce-Murcia, 1977). Third, identifying and classifying L1 interference errors may not be accurate if the researcher does not know learners' L1 (Schachter & Celce-Murcia, 1977).

Along with the limitations of the EA methodology *per se*, some of the limitations with respect to EA arise from how this methodology was used in previous studies. In this respect, many previous studies using EA were not based on a detailed analysis, which may have compromised the reliability of their results (Schachter & Celce-Murcia, 1977). Second, most previous studies using EA focused on small datasets, which could have biased their conclusions (Schachter & Celce-Murcia, 1977).

The current study has adopted several approaches to avoid some related EA problems. Examples of those approaches include the following: incorporating a quantitative evaluation of both correct and incorrect NPs; collaborating with an expert who is a native English speaker to ensure better accuracy in identifying L2 errors; ensuring that the investigator shared L1 (Arabic) knowledge with the learners; including a bilingual Arabic expert to ensure better accuracy in classifying errors as interlanguage or intralanguage; conducting a CA, designed for the purposes of this research (see Chapter 3); conducting a detailed error analysis on a larger amount of data (178 essays) than previous studies (see Section 2.6).

2.4.2.2. Models for Error Analysis

Within EA research, models generally follow the same broad pattern of five stages: errors are first located, then identified, described, explained, and classified.

Researchers have modified this basic pattern according to the specific focus of their studies. Corder's (1967, 1975) pioneering work ignored the first stage (locating errors), but employed the following three stages (identification, description, and explanation of errors). Ellis (1997) and Hubbard et al. (1996) commented on Corder's model and provided examples of how to locate and analyse errors. They suggested that the first step depends on a good choice of corpus, followed by locating the linguistic errors within it. After that, errors are described and classified, and finally, each error is explained separately. Gass and Selinker (2008) identified the two additional steps of quantifying and remediating errors, and James (2013) added contextualisation of errors as an additional stage.

The model that will be adopted for this study is that of James (2013), which is slightly more detailed than Corder's (1967) as it includes "detecting and identifying errors" and "locating errors within their contexts", while slightly less detailed than Gass and Selinker's model (2008). James's (2013) expanded EA model proved to be a good fit for this research project based on the results of the pilot study, because all the appropriate steps for this study are found in James's model. An additional step (i.e. "collecting data") is included in the models proposed by Corder (1967) as well as Gass and Selinker (2008), but "collecting data" need not, *per se*, be reported as a separate stage (or as a necessary step for analysis) because EA cannot operate without the collected data. The final step in James's EA model (i.e., "classifying or categorizing errors" into types), which involves the calculation of frequencies and percentages within each category, is crucial in finding the most frequent errors. This step is also relevant to answering the questions of this research.

2.4.2.3. Error Analysis procedure

The EA study made use of CA findings in the process of describing and explaining errors in terms of the L1 because L1 is not the only concern, while it is central to CA. EA acknowledges L1 interlanguage interference in L2 as one source of errors, but it is wholly descriptive in that sense and avoids comparison with L1 (James, 1998). CA offers the analytical rigour necessary to carry out this study. As James (2013) asserted, "CA is not CA unless it is predictive, and so-called 'diagnostic' CA is not EA, but part of the error analysis" (pp. 180). However, the syntactic or grammatical investigation of the L1 (Arabic) and L2 (English) structures presented in Chapter 3 will offer detailed information about the L2 structure, which assists in identifying errors. In addition, the differences between the NPs in the two languages help to explain the sources of the errors in the L1. The NP components (as described in Chapter 3) will also be considered in classifying errors into their linguistic categories. All these adoptions of CA into the EA methodology have facilitated dealing with the sample corpus in both the pilot study and the main EA research study.

The four steps in conducting this EA are outlined below.

Step 1: Detection and identification of errors

James (2013) presents several considerations for researchers to consider in error detection, focusing on differences between oral and written/recorded speech and native speaker status. He enumerates the following conditions for analysing L2 production: a) locating errors is hard unless they are written or recorded, b) it is more difficult to spot one's own errors than to spot other people's errors, c) error-detection capacities differ between native speaking teachers and non-native speaking teachers, and d) those capacities also differ between teachers and non-teachers.

These considerations highlight the importance of collecting written data and having someone other than the writer locate errors. Further, if the researcher is a non-native speaker (NNS) of the L2, (s)he should have a native speaker (NS) revise the data for accuracy; and only NS teachers should be used in this step, because of their previous educational knowledge and teaching experience. In this study, all these considerations are taken into account. The object of study is students' written essays and the researcher draws on a corpus of learners' errors from PNU. In addition, both native and non-native speakers have been recruited to identify errors. For the revision step, errors within the collected data (written essays) are detected and identified with the help of two English grammar experts; one is a native speaker of English and the other is a bilingual Arabic expert.

Step 2: Locating errors

Error location involves two kinds of errors: local and global (Burt & Kiparsky, 1972; as cited by James, 2013, p. 6/66). According to Dulay et al. (1982), incomprehensible (global) errors affect the general organization of the sentence and hamper communication (p. 191). Such errors include incorrect word order, morphological errors, and missing functional categories. Comprehensible (local) errors, on the other hand, are described as those that affect single elements of the sentence or NP and do not hinder communication (Dulay et al., 1982, p. 191). These errors belong to the linguistic categories of articles, nouns, pronouns, adjectives, numerals, and prepositions. James (2013) emphasized that writing errors should be located in reference to the target language, according to the planned course objectives, and according to the rules that students violate in their writing. In other words, writing errors are located in terms of any deviations from the L2 (English structural forms).

The comprehensibility and incomprehensibility of errors will be discussed separately at the end of this chapter.

Step 3: Describing errors

Error description is a step that aims to analyse the surface features of learners' errors (in this case, from EFL writing essays) to provide a basis for interpreting them (Selinker, 1974). In this step, EA locates errors that cause unsuccessful language (James, 2013), and compares the learner's interlanguage with the target language (James, 2013). James (2013) suggested that error description supports analysts in labelling errors as interlanguage (L1 interference errors) or intralanguage (developmental errors); this, in turn, enables the researcher to count them and compare the numbers of each type. James (2013) stressed that data collected from students' writing should be interpreted as "the learner's version of the TL" (pp. 3), which implies that the learner's interlanguage should be understood in terms of the L2 grammar. In addition, this research will benefit from the results of CA in comparing the English NP with a detailed description of all possible morphosyntactic components of the Arabic NP and their interaction by identifying the potential L1 influences in the learner's version of L2 (English) NPs. This will make it possible to identify and account for interlanguage sources of errors.

Step 4: Error classification

As pointed out above, describing errors allows researchers to recognize and categorize patterns of the same kind of errors. Error analysts have suggested these taxonomies to help organise and classify errors according to "certain constitutive criteria" based on linguistic categories (James, 2013, pp. 23;67) and L2 surface structure deviations (Dulay et al., 1982). The first is based on the linguistic category affected by the error. This includes the level at which the error is located, (e.g.,

syntactic or grammatical, morphological, or lexical errors). Having recognised this, next we locate an error's word class (e.g., article, noun, adjective, pronoun, quantifier, preposition, etc.) in relation to where the error occurs (James, 2013). The second is a taxonomic classification that adopts Surface Structure Taxonomy (SST), a naming system that identifies how learners' language differs from the L2. Dulay et al. (1982) identified four kinds of alterations to the correct form of the L2 found in errors: deletion, addition, misselection, and misordering (p. 50). Deletion is an omission of an element; addition refers to including an item or mark that is not supposed to be present; misselection indicates substitution between the various members of a class; and misordering identifies arranging linguistic items in a wrong order. Taxonomies adopted from both James (2013) and Dulay et al. (1982) helped in implementing the EA process for this study.

In the current study, errors are classified based on linguistic level, first by finding those that occur in the NP, and then in terms of the components of the NP (e.g., articles, nouns, adjectives, etc.). Typically, this EA step of describing and categorizing errors is concerned only with deviant language attributed to L1 interference (interlanguage), where deviant language consists of those linguistic modes that do not follow the norms of L2 structural patterns, but tend to be patterns affected by L1. These errors can be considered as low achievement and thus attract the error analyst's interest (Ellis, 2008; James, 1998). At this stage, a typology will be set based on those six general NP components (Quirk, Greenbaum, Leech, & Svartvik (1985). In addition, the analysis in this study makes use of the four principal types of SST: deletion, addition, misselection, and misordering (see Chapter 4). This framework is expected to be useful and appropriate for handling the errors made by

advanced learners, as it analyses the advanced writing at the college level in detail to identify the linguistic NP errors, describe them and investigate their sources.

2.5. Research into EFL Syntactic Errors in Writing

There is extensive research literature on the use of EA to identify, describe, and categorise learners' errors. In relation to L2 writing, both interlanguage and intralanguage errors have been identified; the frequency of the former has been shown to reflect the distance between the two languages. For example, they are frequent in L2 English writing when the L1 is Arabic or Chinese (James, 2013); coming from different and distant language family, but significantly less so when the L1 is German or Spanish (Katzner, 2002); coming from the same language family. Schachter (1990) found that writers whose L1 is Dutch, the structural forms of which are largely similar to English, made very few errors, in contrast to writers whose L1 is Korean. Schachter and Celce-Murcia (1977) reported also that the structural differences between certain languages (e.g., Chinese, Arabic) result in interference (interlanguage) errors, while the same errors can be considered intralanguage errors for other languages (e.g., German, or Spanish), which present no structural differences in the same area.

In the following section, previous research will be discussed on L1s that are structurally different from English (Katzner, 2002).

2.5.1. *Previous Studies of Errors by EFL Learners of L1s other than Arabic*

Consistent with what we will see in the following studies, success in learning EFL would be proven by demonstrating internalised generalisations similar to those of native English speakers, or if learners' L1 is already close or identical to English in the relevant respects (James, 2013). The following paragraphs give examples of EA

studies of languages structurally different from English, followed by examples of studies on languages structurally similar to English.

Zhang (2007), Zheng and Park (2013), and Kaweera (2013) studied Chinese learners' EFL writing errors and found that errors were a result of the structural differences between English and Chinese, noting that L1 interference (interlanguage errors) and developmental (intralanguage) were the sources of errors. Likewise, in Taiwan, Chen (2000) investigated EFL students' compositions and found that most of the errors were due to structural differences between Taiwanese Mandarin (i.e., Chinese) and English. For example, articles were found to be the most difficult grammatical point Taiwanese EFL students face, as there is no equivalent syntactical category between the English article system and their L1.

Jenwitheesuk (2009), Phetdannuea and Ngonkum (2016), and Watcharapunyawong and Usaha (2013) conducted studies in Thailand (where the L1 belongs to the Tai family) (Katzner, 2002, p. 220), on interlanguage and intralanguage errors committed by EFL writing students. Their studies showed that differences between the two languages' linguistic features were the main factor impeding the students' successful learning of EFL writing. They all affirmed in their findings that L1 interference was the major cause of errors. Similar to L1 Arabic learners, Thai learners showed a high frequency of errors in articles, prepositions, and pronouns; misuse of articles was the most frequent error. In addition, many of the above researchers found that interlanguage errors were committed more frequently than intralanguage errors, and that developmental errors were mainly due to students' unawareness of the correct forms of English structures and to their lack of knowledge of its grammatical rules.

Studies have also been conducted on L1 languages that belong to the Austronesian family (Malay and Indonesian)(Guérin, 2017; Katzner, 2002). Maros, Kim Hua, and Salehuddin (2007) examined 120 Malaysian students' English writing. The findings revealed that many errors reflected L1 interference, and that the use of articles was among the most problematic linguistic categories for learners. The study also showed that the SSTs of omission and substitution are the most common types of errors among all linguistic categories. Yin Mei and Ung T'chiang (2001) investigated 50 written essays by Indonesian L1 EFL students to determine how the native language influenced the acquisition of English. The analysis revealed that there were errors due to L1 interference in the target language. Among them were omission of articles, incorrect usage of articles, adjective errors, and literal translations.

In the Korean and Altaic families of languages (Katzner, 2002), Kim (2001) examined L1 Korean interference in EFL writing, and found that most of the errors were due to L1 interference and most of the interlanguage errors were in prepositions (incorrect usage, redundancy), articles (omission of *a*, incorrect use of *a*, and omission of *the*), plural/singular agreement, and adjectives. In addition, Atmaca (2016) and Kesmez (2015) studied learners' errors in EFL writing and their frequencies. They identified and categorised learners' EFL errors and found Turkish learners of English heavily rely on the structures of the Turkish language; therefore, numerous interference errors were committed while writing in English, on account of the differences between the two languages. The errors they found involved sentence structure, articles, punctuation, nouns (gerunds and plurals), possessives and prepositions. The study suggested that EFL teachers and curriculum designers should make students aware of their interference errors.

Studies of interference in L2 English writing arising from Semitic languages (Arabic, Hebrew, and Maltese) are of particular relevance to the present research. As an example from the Sematic family, Camilleri (2004) studied Maltese L1 learners; the results revealed that the most frequent errors made by the students were in the categories of articles, nouns, pronouns, adjectives, prepositions, spelling, and word order. (Those relating to Arabic, the language involved in this study, are reviewed in greater detail in the next subsection.)

As explained, the studies reviewed above were carried out with students with L1 different from English and from language families that are distant from English. The studies used EAs and found that the majority of errors were interlanguage; they also noted that L1 interference was due to the fact that there were more differences than similarities between the learner's native languages and the English language.

On the other hand, in languages other than English that belong to the Indo-European language family, L1 interference (interlanguage) has been shown to have less of an impact in EFL writing. The following studies are of L1s that are closely related languages to English. For example, Schachter (1990) found that L1 Dutch speakers showed better performance in learning EFL, due to their L1 having largely identical structural forms. She concluded that a foreign language "learner will fall short of NS" (as cited in James, 2013, p. 53/64), and that this leads to the idea that the closer the structures of the two languages, the better the learning. In another example, Lopez (2011) investigated the influence of L1 Spanish in EFL writing, and based on the analysis, the results indicated that learning EFL writing was generally challenging, and that some errors found were a result of direct influences from L1 to L2 writing. Lopez also found that errors involved the incorrect use of the definite article, *the*.

Those errors emerged mostly from lack of knowledge about the second language and not due to L1 interference.

The above studies analysed EFL learners' data to identify linguistic errors in EFL writing, and they all acknowledged that EFL learners make both interlanguage and intralanguage errors. This research will employ EA to investigate the syntactic errors Arabic-speaking college students commit in their EFL writing. I will now turn to reviewing previous research specifically on L1 Arabic learners.

2.5.2. *Studies of Arabic-speaking EFL Learners' Syntactic Errors in Writing*

There is a considerable number of error analyses of EFL academic writing by Arabic-speaking learners in a number of countries. Two recurring themes emerge from this body of research: that the large majority of errors are attributable to interlanguage interference, and that these predominantly relate to the English article system.

2.5.2.1. Studies finding articles, along with other categories, to be major sources of errors

AbiSamra (2003) studied a corpus of 10 essays written by Arabic-speaking EFL learners. After analysis, she found a total of 213 errors (29 grammatical, 35 syntactic, 26 lexical, 3 semantic, and 120 of mechanics and spelling). AbiSamra concluded that Arab EFL learners commit serious interlanguage errors because they reply heavily on their L1 knowledge. These errors include definite article insertions, indefinite article deletions, preposition misselections, and adjective misorderings.

Abushihab, El-Omari, and Tobat (2011) conducted a study to classify the syntactic errors made by Jordanian EFL learners. The study participants were 62 students who were studying English literature and translation. The results revealed that the most frequent errors were in the use of prepositions (26.08%), e.g.,

misselection of *from* for *at* or *on*; nouns (24.6%), e.g. deletion of plural –s; and articles (21.7%), e.g., omission of *a(n*). They concluded that Arabic interference contributed to causing errors.

F. Ahmed (2016) investigated grammatical, spelling, punctuation, lexical, and discourse errors in the writing of Saudi EFL university students. The study involved 20 participants. The findings revealed that grammatical errors in the misselection of pronouns were most frequent, followed by insertion and omission of articles and misselection of prepositions, and that those errors were mainly due to L1 interference.

Al-Khasawneh (2014) conducted an error analysis on a corpus of 26 written EFL paragraphs. The participants were Arabic-speaking students, 16 female and 10 male. The findings revealed that the most frequent errors were in the addition of English articles. In light of the results, the researcher suggested that identifying the writing errors provides teachers with the necessary information about language learning problems, and that this knowledge can be used to redesign curriculum and prepare effective teaching materials.

Al Shahrani (2018) investigated Arabic language interference in 120 EFL essays by students in Saudi Arabia. Errors were identified and categorised according to surface structure taxonomy (SST) where learners' surface structures differ from those of the target language. The results revealed that most errors were committed in misselection of determiners and prepositions; deletion of plural –s (nouns); followed by addition and misordering of nouns, pronouns, and adjectives. Interlanguage errors (60.9%) were more frequent than intralanguage errors (39.1%). The study recommended that teachers should have knowledge of the linguistic errors and the similarities and differences between L1 and L2 to benefit their teaching and to enhance the students' writing performance.

Al-Sindy (1994) studied syntactic errors in 40 compositions by Saudi freshman students majoring in English. Both CA and EA were employed, and errors were identified, classified, and explained in terms of interlanguage and intralanguage interference. The findings of the study indicated that article and preposition errors were more frequent than other grammatical categories; that interlanguage errors occurred more than intralanguage ones; and that Arabic interference played a major role in the students' English writing.

Al-Zubeiry (2015) described the syntactic errors produced by 50 Saudi university EFL learners (both males and females) in reference to the SST category of addition. A descriptive statistical analysis was employed to explain the errors. Error frequencies were calculated, and possible sources of errors were identified. The errors were then categorised in terms of their grammatical aspects, frequencies, and interlanguage or intralanguage sources. The study revealed that L1 interference (interlanguage errors) accounted for a slight majority of errors (51.61%), with errors of developmental (intralanguage) sources contributing 48.39%. Interference from Arabic structures occurred in incorrect addition of articles (before nouns of generic reference or abstract nouns), redundancy of major constituents (addition of subject/ object pronouns), and erroneous addition of prepositions and conjunctions.

Barzanji (2016) investigated the most common writing errors made by undergraduate Saudi students, with special focus on the five most common. The study examined 58 essays by EFL major students. The researcher used an error inventory that included a combination of 15 types of errors. The findings revealed that the most frequent type of error was missing/unnecessary words (17.86%); followed by spelling errors (15.66%); wrong word choice (14.00%); articles, especially overusing the definite article *the* (7.68%), and wrong noun form, especially in number (6.68%).

Article errors and use of incorrect noun forms were attributed to L1 interlanguage interference.

Sawalmeh (2013) investigated errors in 32 EFL essays written by Arabic-speaking Saudi learners. Errors were identified and classified into categories. The results indicated that articles are the most frequent error category (12.4%); followed by word order (10.9%); prepositions (8.4%); and pronouns (7.2%); and that those errors were due to L1 interference. Based on the results, suggestions were made for teachers to use strategies that may reduce future problems in writing English essays.

Zughoul (2002) examined the interlanguage syntax of Arabic-speaking learners of English in the area of the noun phrase, focusing on the elements that occur before or after the noun. The participants were 25 Arabic-speaking English language learners from seven Arab countries. The most frequent noun phrase errors were in the use of articles, (particularly the omission of the indefinite article; redundant use of *the*; deletion of *the*; and redundant use of *a* and *an*); and nouns (mainly disagreement in number between determiners and nouns, and misformation of plurals).

2.5.2.2. Studies of article errors

Alhaysony (2012) conducted a descriptive error analysis of definite and indefinite articles used by 100 female students in the University of Ha'il. Analysing their compositions, she found that interlanguage transfer in the use of articles accounted for more than half (57%) of the errors, while the remainder were intralanguage errors. In this study, article errors were categorised according to their Surface Structure Taxonomy (SST). Alhaysony found that deletion errors were the most frequent (48.58%); and addition errors ranked second (46.80%); while misselection errors were rarely made by learners (4.50%). She also concluded that L1 (Arabic) interference (interlanguage errors) was a clear source of errors.

Thyab (2016) studied the types of errors produced by Saudi female EFL students when using articles. One hundred written samples of writing by EFL students were analysed. The analysis revealed similar results to Alhaysony (2012), that deletion errors were the most frequent, while misselection were the least frequent. Additionally, among all types of deletion errors, the deletion of the indefinite article, *a,* was the most frequent, while the deletion of the indefinite article, *an,* was the least frequent error. Errors of addition were mostly related to the definite article, *the*. The results showed that 57.44 % of the errors were interlingual while 42.56% were intralingual.

Alhaisoni et al. (2017) investigated the types of errors produced by Saudi EFL students in their use of articles when writing compositions. Data were collected from the written samples of 150 students. The study described the frequencies and sources of article errors. The analysis of interlingual and intralingual errors revealed that the frequencies of deletion of both the indefinite and definite articles (64.1%) were higher than the frequencies of addition (27.5%) or misselection of one article for the other (8.4%).

Al-Qadi (2017) studied Arabic-speaking EFL learners in their use of the English article system. The study aimed at finding possible sources of errors. Fifty Saudi male EFL learners and five teachers participated in the study. Errors were identified and classified according to the Surface Structure Taxonomy (SST) of errors in three major categories: omission, addition, and misselection. Those categories were then classified according to their error sources into interlanguage and intralanguage error types. The study revealed that Saudi learners made errors in all categories, but addition errors were the most frequent (55.6%); misselection errors were the second most frequent (26.9%); and deletion errors were the least frequent (17.68%) of all

error types. Analysis of results and the interviews showed that most of the errors were attributable to L1 interference (interlanguage) effects.

Bataineh (2005) conducted an error analysis aimed at identifying the kinds of article errors Jordanian university EFL students make in their use of the indefinite article. The types of errors found included deletion (26.20%) and misselection (17.11%) of indefinite articles. Bataineh stated that, among the identified types of errors, deletion of indefinite articles can be traced back to the influence of Arabic.

Chelli (2013) investigated 92 EFL university students' errors in the use of prepositions and articles in their written productions in Algeria. Error analysis was conducted, and she found that 79.15% of the errors made in prepositions and 72.85% in articles were caused by interference from the Arabic language (interlanguage errors). As for other errors, 20.85% of errors in the use of prepositions and 27.15% in the use of articles were due to overgeneralisation (intralanguage errors). The study concluded that interlanguage errors were more frequent than intralanguage ones, and that students' attention should be drawn to the differences between Arabic and English use of prepositions and articles.

Crompton (2011) investigated the scale and nature of article system errors made by EFL students in the UAE. Ninety-five writing essays were analysed to identify error types in the use of the English article system. He found that errors in the use of articles were mainly attributable to L1 interference, rather than intralanguage developmental effects. The study revealed that the improper insertion of the definite article, *the,* was the most common error among the learners (57%).

Kassamany (2006) studied the first language impact on the use of the English system by EFL Arab learners. Her study was conducted on students in the first year at the University of Beirut. The results showed that Arab learners do not know how to

distinguish the use of the definite article, *the,* and the indefinite, *a,* as there is no indefinite article in Arabic. The study also found that most errors made by the Arab learners in using English articles were due to two reasons: the interference of Arabic and the complexity of the English article rules; e.g., using the definite article sometimes and ignoring them other times: *the school* is open, versus we go to *school*, whereas in Arabic the definite article *al* (= *the*) would be used in both situations.

Kharma (1981) conducted a study on the use of the English articles by Arab learners of English in Kuwait. His findings support the idea of L1 interference in the process of learning the English article system. The study indicated that most errors made were due to Arabic language interference.

Stehle (2009) studied the problems encountered by Arab students of EFL in using English articles. Errors of articles were identified, counted, and classified. The study found that most of the errors involved erroneous overuse of the definite article, *the*, for generic reference, and that these errors were caused by L1 transfer. L1 transfer may be a problem and, as such, could be usefully addressed in language instruction.

Almost all the previously mentioned studies used EA to analyse errors. The studies revealed three important points: a) L1 interference (interlanguage) is responsible for many errors, b) interlanguage errors are more frequent than intralanguage ones, and c) the most frequent NP interlanguage errors were articles, pronouns, nouns, and prepositions.

2.6. Error Comprehensibility

Previous research has shown that error frequency strongly correlates with the "seriousness" of an error in terms of the distance from the norm and communication disturbance (James, 2013, pp. 10-11;53). Research into errors of text

comprehensibility has generally emphasised the fact that successful communication is about comprehensibility of the message (Brown, 2000; Phetdannuea & Ngonkum, 2016). Comprehensibility has "its two sides: the success of the text producer and that of the text receiver" (James, 2013, p. 212). It is broadly defined as linguistic perception of the ease or difficulty with which a reader or listener understands L2 text or speech (Munro & Derwing, 1999). A sentence is deemed unintelligible when it is ambiguous or wrongly formed. Although grammatical accuracy is not always important for communication, grammatical inaccuracy should not present an obstacle to intelligibility (Page, 1990).

Burt and Kiparsky (1972) clarified that there are two types of errors, global and local, and stated that global errors affect the comprehensibility of text more than local ones (Burt, 1975; Hendrickson, 1976). Burt and Kiparsky (1975) also added that global errors refer to errors that affect the structure of the whole sentence significantly; thus, they are expected to hinder communication. Unlike global errors, local errors do not prevent a message from being understood, as they impact only certain parts of a sentence, causing a minor disruption of one fragment, allowing the reader to predict the intended meaning from other features of the text.

Eddine (2012) examined the comprehensibility of interlanguage errors produced by French learners of English in the use of prepositions. The results of her analysis showed that substitution errors were the most frequent category, and that errors of prepositions could be misleading for readers, depending on the writer's and reader's intention and reception. She concluded that those types of errors did not play a major role in reducing comprehensibility or in affecting the intelligibility of the message.

In their study of interlanguage and intralanguage errors in EFL writing, Phetdannuea and Ngonkum (2016) explored the degree of "communication disturbance" caused by those errors, and the influences of those errors on the comprehensibility of English language writing in Thailand. The results revealed, "the overall global errors which caused the incomprehensibility of the written sentences were the inter-lingual errors" (Phetdannuea & Ngonkum, 2016, p. 48). The study also revealed that the intralanguage errors did not have much influence on text comprehensibility. For example, punctuation errors (e.g., omission of commas) were the most frequent error type, but they were generally more of an annoyance to the reader than a cause of incomprehensibility.

The above findings agree that the acceptable product of clear communication is when the message transmits properly (Brown, 2000; Eddine, 2012; James, 2013; Phetdannuea & Ngonkum, 2016, p. 41); in other words, when errors do not harm the EFL structure and are minor (local) message disorders. It is suggested that instructors should not correct all errors, but concentrate on those that affect or interfere with the general comprehensibility of the learners' writing (Touchie, 1986).

2.6.1. *Assessment of Text-Error Comprehensibility*

There is a difference between comprehension and comprehensibility. Comprehension relates to understanding the intended meaning of written or spoken communication, but comprehensibility concerns the perception of the correct structure of written or spoken language by a reader or listener (Richards & Schmidt, 2010). An EFL learner's inability to perceive native speakers' English grammar, idioms, and vocabulary is due to failure in perceiving the message, while the problem of comprehensibility is concerned with intelligibility and a lack of clarity resulting from improper English usage of grammar and vocabulary by the EFL learner. That is why

James (2013) noted that “the trouble with miscommunication (MCM) is that it is intelligible: if it were not, there would be non-communication, that is, unintelligibility” (p. 24; 53), so intelligibility is the consequence of successful communication.

Research has furthermore shown that there is also a difference in comprehensibility judgments between native speakers (NS) and non-native speakers (NNS). Djiwandono (2017) reported in his study that NS and NNS professionals perceive sentences written by EFL students differently. Djiwandono added that errors that obstruct comprehensibility are found in fragmented phrases, wrong collocations, mismatched symbols, wrong parts of speech, unfinished sentences, and excessively long sentences joined by a conjunction. In another study, Hughes and Lascaratou (1982) found that NNS EFL teachers rated word order and agreement between parts of a phrase or a sentence as the most confusing of all errors. Nevertheless, NS teachers considered errors that affect the syntactic structure to be the most serious.

On the other hand, native speaker non-teachers ranked errors of spelling and vocabulary as the most serious. Therefore, for NSs, generally, word errors were most distracting and had an impact on communication, as they reduced intelligibility (Hughes & Lascaratou, 1982, p. 179). Similarly, McCretton and Rider (1993) also found that NS evaluators were more tolerant towards learner errors than non-native evaluators, and that ‘word errors, e.g., spelling and vocabulary’ were the least comprehensible.

In addition, James (1977) suggested that NS subjects tended to judge errors leniently when they understood the message the learner was trying to send. This attitude considers other related issues, such as tolerance as a result of teachers’ familiarity with errors (Santos, 1988). Eddine (2012) emphasised the idea that NSs

who do not have any L1 knowledge would be better judges of text comprehensibility (p. 236), because knowledge of L1 would affect judgement. She adds, however, that comprehensibility or incomprehensibility of a linguistic error is clearly a subjective judgment and can be affected by several considerations, e.g., the assessor's knowledge of the writer's L1, the writer's intentions, and the error's meaning in relation to the context, among others (Eddine, 2012, p. 240). In order to avoid the subjectivity of the researcher's assessment of errors and to ensure reliability, a native speaker should be asked to assess the degree of incomprehensibility of the written text (Eddine, 2012, p. 264).

Furthermore, Johansson (1978, p. 65) investigated the impact of grammar and lexical errors on comprehensibility and found that grammatical errors were less likely to cause intelligibility problems to NSs. Similarly, Mot (2015) studied the influences of errors on comprehensibility of the text as part of Error Evaluation. The participants (NS experts and NNS non-experts) judged the naturalness, seriousness, and degree of irritation caused by errors, and found that the NSs focused on the error's impact on comprehensibility, whereas the NNSs focused on the basic rules of the TL. The NSs judged word errors more severely than grammatical errors, considering insertion, omission, and wrong word choice to be serious errors. The NNSs, on the other hand, were stricter, harsher on morphology, and less concerned with syntax and word order. Khalil (1985) provided a different view: he found that in NSs' assessment of written errors of Arab EFL learners, semantic errors had a greater negative impact on comprehensibility than the grammatical ones.

The work of Bent and Bardlow (2003), Jenkins (2000), and Lima (2016) has established two important facts in relation to comprehensibility: NNSs understand less than NSs expect, and NNSs are more distracted by another language (L1) than NSs

(as cited in James, 2013, p. 17/53). Although the spoken form of language has been described as “possibly the greatest single barrier to successful communication” (Jenkins, 2000, p. 83), it still represents only one skill of language production. There are other productive language skills that may affect L2 intelligibility or perceived comprehensibility that are equally recognisable for researchers in the EFL field. Bent and Bardlow (2003) noticed that L2 learners often report that the speech of a fellow NNS with the same L1 is easier to understand than the speech of a native speaker (p. 1600). Lima (2016) also revealed that the comprehensibility ratings assigned by listeners that share the speakers’ L1 were more positive than the ratings assigned by listeners from other L1 backgrounds. This information can help in stimulating researchers to address these issues in EFL contexts.

All the above studies concentrated on differences between NSs’ and NNSs’ evaluations. NSs most commonly concentrated on lexical and global errors (Dulay et al., 1982, p. 50), while NNSs focused mainly on morphology and function words (Ellis, 2008; Mot, 2015). Comprehensibility of a text containing NP errors can be linked to how accurate the intended message is and how correct the phrase structure is, in accordance with English rules. Generally, a linguistic message is about correct formulation and correct reception, so when a message is delivered clearly with the correct structure, nothing will obstruct comprehensibility. This research involves analysing essays, identifying correct and incorrect NPs, locating errors within their contexts, finding interlanguage and intralanguage errors, and specifying the most frequent categories of errors within the NPs. This section (about comprehensibility) is intended to assess whether those most frequent errors affect the comprehensibility of texts.

2.6.2. *Influence of the Most Frequent Errors on Text Comprehensibility*

In relation to this study, the above section about the influence of errors on text comprehensibility provided definitions for comprehensibility of a text; clarified the differences between comprehension and comprehensibility; added a survey of related literature; and delivered some reasons to support the claim that the most frequent errors may affect text comprehensibility.

The assumption that the most frequent errors in EFL writing may lead to incomprehensibility of texts is adopted for three reasons (Touchie, 1986). First, frequent errors are a result of differences between L1 and L2 (in this case, Arabic and English), and they are expected to impede the comprehensibility of the text (Erkaya, 2012; Lado, 1957). Second, the high frequency of certain errors poses a real problem to both learners and teachers, as they need action from both (Touchie, 1986). Third, unlike spoken errors, written errors do not get immediate feedback, as "most students tend to speak fluently, [but] still have poor writing skills" (Al Fadda, 2012, p. 127), and, because the writer cannot orally clarify or elaborate on them, this creates a problem for the message. In addition to the above, rationally the least frequent errors may not create a big problem for teachers, simply because they are much fewer in number and can be treated more easily by correcting them and alerting students to them as they arise.

Research on 'text comprehensibility' is scarce (James, 2013). Most of the studies only hinted at the topic or were not closely related. For example, they concentrated on the spoken language (Pickering, 2006) or on the accents of L2 speakers (Derwing & Munro, 2009), or emphasised other disciplines (for example, statistical literacy: Schield, 2011). James (2013) stated, "data and research on this area [concerning errors and comprehensibility] are sparse" (p. 216).

This study aims to explore errors and comprehensibility through the ratings and open-ended comments of 30 participants (15 of whom are NSs, and 15 NNSs).

2.7. Summary

In this chapter, the research literature relating to L2 errors has been surveyed under six main sections, following an introductory section. Section 2.2 reviewed relevant studies on crosslinguistic influence (CLI) in second language (L2) learning. Section 2.3 discussed errors in language learning, presenting the concepts of interlanguage and intralanguage errors, followed by interference as a source of errors, and ending with errors in EFL writing. Section 2.4 provided a description of the linguistic tools used in analysing errors, offering an outline on CA (the first linguistic tool used in the research), and describing the second and principal tool in linguistic analysis, EA. Section 2.5 presented a survey of research literature, looking at previous studies on EFL learners' errors in writing. The final section (2.6) concluded with a discussion of past work on error comprehensibility, with a particular focus on how the status of the raters impacts comprehensibility evaluation.

The results of this review also highlighted that previous research in the area has several limitations. First, while most previous error analysis studies are too general (providing a very general overview of errors), others are too specific (looking at certain linguistic categorical units e.g., nouns, articles, or adjectives, etc.). Second, most of the previous studies focused on only a small amount of data. Third, most of them have not employed a "combined taxonomies" classification (James, 2013, p. 114).

Seeking to answer the questions related to L1 interference, the present study is designed to address some of the aforementioned gaps. This study analyses NP errors in college EFL writing, which is a common source of learners' errors (Mukattash,

1981; Obeidat, 1986). To this end, the present study uses both EA and CA and employs the previously proposed classification of errors into major word class categories (and their subtypes). The SST taxonomy of common modification is also systematically used. Finally, acknowledging previous findings that the status of a rater can play a role in error comprehensibility evaluation, the present study involves both NS and NNS EFL teachers.

In summary, through methodological triangulation, comprehensive use of error classification into word class and SST-based modifications, and employing different types of raters, the present study provides a new, pedagogically important perspective on studying frequent interlanguage errors that lead to text incomprehensibility. Lightbown and Spada (2013) suggested that, “when errors are persistent, especially when they are shared by almost all students in a class, it is important for teachers to make students aware of this problem and the ways to overcome it” (p. 208). In this content, the results of the present study will make it possible to better identify EFL learners’ needs and offer meaningful suggestions for changes in the writing curriculum, which, in the long run, will contribute to improving the quality of EFL teaching in Saudi Arabian higher education.

CHAPTER 3: A COMPARATIVE ANALYSIS OF ENGLISH AND ARABIC NOUN PHRASE STRUCTURE

3.1. Introduction

Linguistic errors are “disagreements with the syntactic rules” of a language (Ngangbam, 2016, p. 1). They are frequent in EFL learning (Bataineh, 2005), particularly when the structures of the two languages are very different (Nemati & Taghizade, as cited in Derakhshan & Karimi, 2015, p. 2113). In the case of Arabic EFL learners, interference from Arabic (the first language - L1) is a major cause of syntactic errors, mainly because the two languages are structurally very different. They belong to two different families: Arabic is Semitic, while English is from the West Germanic branch of the Indo-European family (Algeo & Butcher, 2014). The structural differences between the two languages account for interference of the L1 in the second language (L2) (Gedion et al., 2016, p. 103). Research into the differences between L1 (i.e., Arabic) and L2 (i.e., English) is essential to a systematic explanation of the sources of errors.

This chapter describes the structure and components of English and Arabic noun phrases (NP) and, based on its findings on the similarities and differences, makes predictions regarding the potential errors that learners make (Ammar & Lightbown, 2005; Kim, 2001). Sections 3.2 and 3.3 will provide an overview of English NP definitions, then describe the NP’s essential structure in the target language (TL) to identify its components. The next two sections (3.4 and 3.5) will present the components of the English NP and the Arabic NP respectively. There will follow a comparison of the structures and components of the NP in both languages and the main differences will be presented. Finally, the chapter will conclude with a

discussion of potential sources of error in English NP production by Arab EFL learners.

3.2. An Overview of the English Noun Phrase and its Basic Structure

3.2.1. *The Noun Phrase (NP)*

The noun (or a functional equivalent) is the most important element in the NP (Greenbaum & Nelson, 2002, p. 47). Crystal (2008) defined nouns as "items which display certain types of inflection (e.g., of case or number), have a specific distribution (e.g., they may follow prepositions but not, say, modals), and perform a specific syntactic function (as subject or object of a sentence)" (p. 333). This "grammatically distinct category of words … includes those denoting all kinds of physical objects, such as persons, animals and inanimate objects" (Huddleston & Pullum, 2007, p. 83).

The term "phrase" is used even when the syntactic role of the phrase is fulfilled by a single word (Greenbaum & Nelson, 2002, p. 47). The head of the NP may occur alone or accompanied by other syntactic elements, i.e., determiners and modifiers (Leech & Svartvik, 2013, p. 231), as shown in the examples below:

- NP1 [Lulu] deceived NP2 [Mary]: the noun *Lulu* in the subject position and the pronoun *Mary* in the object position are both noun phrases although they are single words.
- NP1 [The teacher] gave NP2 [several lessons on history]: the determiner *the* precedes the N *teacher*; the other N *lessons* is preceded and followed by modifiers. *Several* is a pre-modifier and *on history* is a post-modifier.

As these examples show, NPs perform four main syntactic functions:

1. subject, e.g., *Lulu* deceived Mary.

2. objects, e.g., Lulu deceived *Mary,*
3. predicative complement, e.g., It was *the teacher.,*
4. in a prepositional phrase (PP) structure, e.g., We are looking *at the teacher* (Huddleston & Pullum, 2007, p. 82).

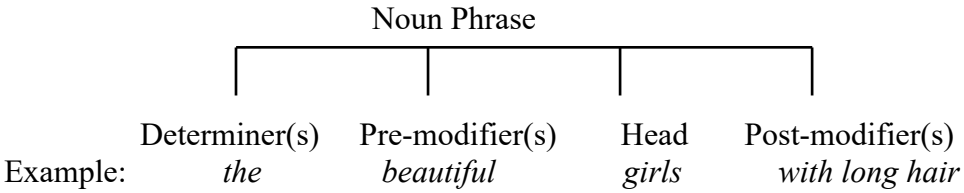
A noun can be analysed in terms of inflection, function, and dependents:

- inflection: nouns are inflected for number (i.e., singular and plural: e.g., *girl, girls*) and possessive (e.g., *girl's* , *girls'*);
- function: where the noun typically performs, at the head of the NP;
- dependents: where the dependents occur with the noun as head, e.g., *the* girl (determiner), *good* girl (pre-head adjective modifier), the girl *who fainted* (relative clause) (Huddleston & Pullum, 2007, p. 83).

3.2.2. *The Noun Phrase Structure*

This section describes the overall structure of the NP in terms of its constituent elements according to their syntactic categories: a) determiner, b) pre-modifier, c) head, and d) post-modifier (Greenbaum & Nelson, 2012, p. 47; Leech & Svartvik, 2013, p. 231; Quirk et al., 1985). Figure 3.1 shows the constituents of the NP and their locations in the phrase.

Figure 3.1. Constituents of the NP



As stated above, the head is the most important constituent in the phrase. The dependents of the noun in a NP are determiners and modifiers (Huddleston & Pullum, 2007, p. 83). "Determiners are more essential to noun phrase structure than modifiers"

(Leech & Svartvik, 2013, p. 231). The determiner is normally an obligatory element in a NP, e.g., compare *The house is clean* and **house is clean* (Huddleston & Pullum, 2007, p. 83). "The only situation in which a noun phrase has no expressed determiner is where it has zero article", e.g. *boys* (in general) vs. *all those tall boys* (Leech & Svartvik, 2013, p. 231). The following section describes the NP constituents from the most to the least essential: the head, determiners, pre-modifiers, and post-modifiers (based on Quirk et al., 1985, p. 1237).

3.2.2.1. The head

The head falls into three main categories: common nouns, proper nouns and pronouns (Downing & Locke, 2006, p. 408). It is the essential constituent around which all other constituents, i.e., articles, adjectives, certain pronouns (e.g. relative, possessive), numerals, and prepositional phrases cluster.

3.2.2.2. Determiners

Determiners are positionally restricted to the initial slot in the NP (Gregori & Garcia, 2008, p. 106; see Figure 3.1). Determiners include: articles, certain pronouns (demonstratives, possessive), numerals and quantifiers. They specify the range of reference of a noun in various ways, e.g., by making it definite (*the boy*), indefinite (*a boy*), by relating the entity to the context (*this boy*, *that occasion*), by signalling the person to whom the referent belongs (*my boys, his occasion*), or by indicating numerals or quantity (the *first boy*, or *many boys*) (Leech & Svartvik, 2013, p. 205). Greenbaum and Nelson (2002, p. 48) classify determiners into three kinds:

- ***Pre-determiners*** include all the items that can precede any central determiner, e.g., *half* the students.

- ***Central determiners*** include all the items that can follow pre-determiners, but precede post-determiners, e.g., all *these* other jobs.
- ***Post-determiners*** include all the items that follow central determiners, but precede noun pre-modifiers, e.g., the *first two* students.

3.2.2.3. Modifiers

Modifiers can be classified according to their position relative to the head: pre-modifiers precede it, while post-modifiers follow. In addition, Huddleston and Pullum (2007, pp. 83-94) note that modifiers of the noun in a NP are of two kinds:

- Modifiers which describe the head noun and consequently can be omitted (a default type of dependent); there is no limit to the numbers of modifiers occurring before or after the noun, e.g. *an old* woman *from London*, where *old* is used as a pre-modifier, and *from London* as a post-modifying PP; and
- Modifiers as complements which complete the meaning of a noun or NP, e.g., PPs as complements (her teacher encourages her passion *for writing*), or subordinate clauses as complements (a claim *that she was smart*). The prepositional phrase (PP) and subordinate clause are obligatory since the noun makes little or no sense without it.

3.2.3. *The Components of a Noun Phrase*

NPs in English and Arabic are structurally different, but use the same grammatical components. The comparison between the different parts of noun phrase structure are treated separately as follows:

- Nouns: common, proper, and possessives;
- Pronouns: personal, possessive, reflexive, demonstrative, and relative;
- Articles: definite and indefinite;

- Numbers (cardinal and ordinal) and quantifiers;
- Adjectives: attributive and predicative; and
- Prepositions.

This classification system is designed to maximize the comparability of the English and Arabic parts of NP (as listed in Greenbaum & Nelson, 2002, pp. 47-53; Huddleston & Pullum, 2007, pp. 82-146; and Leech & Svartvik, 2013, pp. 231-255).

3.3. The English Noun Phrase

In this section, a description of the constituents of the English NP is presented following the classifications defined by Greenbaum and Nelson (2002), Huddleston and Pullum (2007), Leech and Svartvik (2013), and Quirk et al. (1985). The section will depend mainly on related references to English grammar. The different uses of English NP subcategories are analysed, namely: a) nouns (proper and common), b) pronouns (personal, possessive, demonstrative and relative), c) articles (definite and indefinite), d) numbers (cardinal, ordinal, and quantifiers), e) adjectives, and f) prepositions. The components are discussed in terms of their location in the NP structure.

3.3.1. *English Nouns*

As noted above, nouns can refer to a specific example of a thing or a whole class of people or things. They belong to the open word class, in that they are "readily open to new words. For example, it is easy to create new nouns, but not new pronouns" (Greenbaum & Nelson, 2002, p. 86). They are words that can operate as a subject or object of a clause, or a complement of a preposition (Leech & Svartvik, 2013, p. 231). A noun appears alone or accompanied by one or more dependents (Huddleston & Pullum, 2012, p. 329).

3.3.1.1. Noun types

Nouns are categorized into three major sub-classes: common, e.g., the *manager*; proper, e.g., *Mary*; and pronouns, e.g. *I, me, my, mine, who, that*, et cetera (Huddleston & Pullum, 2007, p. 84). In order to serve the purpose of my classification of components, I go with Greenbaum and Nelson (2002, p. 88) in classifying nouns into "common or proper", and pronouns will be discussed in the following section. The common noun refers to any non-specific person, place, or thing, whereas proper nouns refer to a "specific people, places, or occasions, and usually begin with a capital letter" (Greenbaum & Nelson, 2002, p. 89). In addition, common nouns can be sub-classified to types, i.e., concrete (e.g., *ball*) and abstract (e.g., *passion*), and forms, i.e. count (e.g., *boy*) and non-count (e.g., *salt*). One of the features of English common nouns is that a distinction is made between countable and non-countable nouns, where countable nouns are those that can be used in plural forms, while non-countable nouns do not have a plural form and cannot be used with number words (Huddleston & Pullum, 2007, pp. 85-86).

3.3.1.2. Noun features

Nouns have four features in which agreement between the noun and the other elements in the phrase takes place. Agreement is "an interconnection between words, especially marked by their inflections"; it occurs "when a word changes form depending on the other words to which it relates", in person, number, gender and case (Algeo, 2010, p. 4):

- Person: refers to the subject of a statement in relation to the utterer. There are three persons, namely, first (1st) person (*I* read the book), second (2nd) person (*You* read the book) and third (3rd) person (*John/He* reads the book). The 3rd person is the default term in the system, meaning that neither the writer nor the

addressee is included, and thus typically excludes them (Huddleston & Pullum, 2007, p. 102).

- Number: refers to whether a noun is singular (one) or plural (more than one). The singular form is identical with the lexical base in most cases, whereas the plural is formed by adding a suffix (s) to the lexical base, e.g., *boy – boys*, *card – cards*; the ending of the base may sometimes need modifying, e.g., *melody – melodies*, *body – bodies*. There are some exceptions where plural nouns do not follow the regular rules of pluralisation, e.g., *child – children, woman – women* (Huddleston & Pullum, 2007, pp. 85-86).
- Gender: refers to the natural gender of a noun (masculine, e.g., *man, boy, son*; feminine, e.g., *woman, girl, sister*; neuter/ inanimate objects, e.g., *table, book, umbrella*). When the noun denotes a person of either sex, gender of some nouns is neuter (not sexist), e.g., *student, teacher, cousin* (Huddleston & Pullum, 2007, p. 104). In a few cases, the natural gender is reflected in a suffix to noun (e.g. *waiter–waitress,* actor–*actress)* or a different lexical base *(master–mistress*), but many of these terms were replaced by gender-neutral forms (e.g. *server* instead of waiter or waitress, *actor* or *master* for both men and women) (Richards & Schmidt, 2010).
- Case: indicates the relation of the noun or the NP to other elements in a clause. The possessive marker (the only English case marker) of nouns is realized by *'s* for both singular nouns (e.g., *the boy's book*) and irregular plurals (e.g., *the children's book*), and (s') for regular plural nouns (Quirk et al., 1985, pp. 321-323). Possession can also be expressed using an *of*-construction (post-modifying prepositional phrase), for example: the *girl's name*, the name *of the girl* (Quirk et al., 1985, pp. 321-323).

3.3.2. *English Pronouns*

Pronouns are categorised into several kinds: personal, possessive, reflexive, demonstrative, and relative.

3.3.2.1. Personal pronouns

Personal pronouns generally substitute for nouns and become the head word in a NP (Greenbaum & Nelson, 2012, p. 99). Some reflect the features of that noun in terms of person, gender, number and case. Pronouns are distinctly different from nouns in their inability to take any determiner as a dependent, e.g., **the me*, **a myself* (Huddleston & Pullum, 2007, p. 84); such constructions are possible but rare.

3.3.2.2. Pronoun features

Just like nouns, pronouns make some distinctions in person, gender, number, and case (Greenbaum & Nelson, 2002, p. 100):

- Person: **(**a) 1st person indicates reference to the speaker, e.g., *I, we*; (b) 2nd person usually indicates direct reference to the person or persons addressed by the speaker, e.g., *you*, for both singular and plural; (c) 3rd person refers to anyone not partaking in the speaker-addressee utterance, outside of the speech exchange, e.g., *he, they*.
- Number: refers to whether a pronoun is singular (one) or plural (more than one). Single and plural pronouns are shown in the table below. Number agreement is necessary for syntactically correct sentences; i.e. if the pronoun is 3rd person singular, the verb needs to agree with it as in *she sing-s a song*.
- Gender: Personal and reflexive pronouns are gender-sensitive only at the singular level for 3rd person: *he*, *she*, *it* (Huddleston & Pullum, 2007, pp. 85-86).

- Case: Personal pronouns differ in form between the accusative case and the nominative case. The following Table 3.1 sets out some examples:

Table 3.1. English Personal Pronouns – Nominative and Accusative

Person	Nominative	Accusative
1st person (SG)	I	me
2nd person (SG)	you	you
3rd person (SG M)	he	him
3rd person (SG F)	she	her
3rd person (SG N)	it	it
1st person (PL)	we	us
2nd person (PL)	you	you
3rd person (PL)	they	them

3.3.2.3. Possessive pronouns

Pronouns in the possessive case are genitives and can be used to replace nouns or NPs (Greenbaum & Nelson, 2002, p. 101). As in other cases, they indicate person, number, and gender. They are of two kinds: (a) a sub-class of determiners, when the possessive pronoun is dependent on a noun, with the function of a determiner, e.g., This is *your* car; (b) a sub-class of pronouns, when the possessive pronoun functions independently, e.g., This car is *yours*.

Table 3.2. English Possessive Pronouns

			Form	
Person	Number		Dependent	Independent
1st person	SG		my	mine
	PL		our	ours
2nd person	SG + PL		your	yours
3rd person	SG	M	his	his
		F	her	hers
		N	its	(not used)
	PL		their	theirs

Of note, there is no consensus on the classification of the two types of English possessive pronouns described above (e.g., *my, mine, her, hers*). In this respect,

grammar scholars have proposed different classifications[1]. According to Michael (2010), possessive pronouns have been referred to as possessive pronouns, the possessive case of personal pronouns, pronoun adjectives (listed sometimes among the pronouns and sometimes among the adjectives), and possessive adjectives. The difficulty of classifying these words as pronouns or adjectives is also highlighted in *Encyclopedia Britannica*: "These two classes of words are allied to one another, that it is difficult to ascertain the precise boundary between them" (Gleig & MacFarquhar, 1797, p. 3365). For some grammarians, possessive pronouns are those that function syntactically as nouns (see column 'Independent' in Table 3.2), as in *Those clothes are* ***mine***. All other instances are classified as possessive adjectives (see column 'Dependent' in Table 3.2), as in *She lost* ***her*** *wallet.* Such instances are not regarded as pronouns proper, as they do not substitute a noun or noun phrase, and, accordingly, are ascribed to the category of adjectives (as they play a syntactic role close to that of adjectives, i.e., qualifying a noun).

3.3.2.4. Reflexive pronouns

Reflexive pronouns are used to refer to the same person or thing as does the subject, e.g., you will stress *yourself*, or to give emphasis to a noun phrase, e.g., she *herself* talked to the police (Greenbaum & Nelson, 2002, p. 102). Reflexive pronouns are similar to personal and possessive pronouns in having person, number, and gender distinctions, but they have no case distinctions.

[1] These differences in the classification of possessive pronouns might result in a lack of comparability of the results across EA studies where different classifications are used. In the present study, possessive pronouns are classified according to the most frequent classification adopted by descriptive theory-neutral grammars, such as Quirk et al. (1985). The reason for choosing this approach was that it best fit the purpose of the present study (James, 2013).

3.3.2.5. Demonstrative pronouns

Demonstrative pronouns are used to point to something specific in the context or environment. These pronouns can indicate items in space or time. They can be either singular or plural, but they do not make distinctions in person and gender (Greenbaum & Nelson, 2012, p. 99).

Table 3.3. English Demonstrative Pronouns

Number	Near	Far
SG	This	that
PL	These	those

Some examples of demonstrative pronouns are:

- *This* is my book. *That* is my book.
- *These* are my books. *Those* are my books.

3.3.2.6. Relative pronouns

Relative pronouns refer to nouns mentioned previously and modify that noun in a new clause. They thus can be used to combine two sentences and function as complementizers (e.g., *that* in: They thought *that* she won). They can indicate number and case, but they do not indicate person and gender (Greenbaum & Nelson, 2002, p. 99). The most common relative pronouns are *who*, *whom*, *which*, *whose*, and *that*. The choice of relative pronoun depends on what it is referring to and its role in the new clause:

- The doctor *who* operated on her is Doctor Sam (singular, subject of new clause).
- The woman *whom* I talked to yesterday is my friend (singular, object of new clause).

- The book *whose* cover is leather is not my book (singular, genitive of new clause).
- The food, *which* we ate, is not healthy (singular and plural, object of new clause).
- The shirt *that* I bought has good materials (singular and plural, object of new clause).

3.3.3. *English Articles*

Articles are the main semantic means of marking NP definiteness (Huddleston & Pullum, 2007, p. 91). Three articles are used in English: two are indefinite (for referent or entities that are not identifiable in a given text) and one is definite (for referents/entities that are identifiable in a given text). The indefinite articles (*a* and *an*) are used to identify the noun following as indefinite and singular. The form *a* is used with nouns that start with a phonetic consonant, whereas the form *an* is used only with nouns that start with a vowel. The definite article *the* is used for both singular and plural. English articles always precede nouns and other dependents and act as determiners (Greenbaum & Nelson, 2002, pp. 107-108).

Table 3.4. English Articles

Number of the noun	Type	Examples
SG	Indefinite	I ate *a* sandwich.
SG	Indefinite	I ate *an* apple.
SG	Definite	*The* cat is playing.
PL	definite	*The* cats are playing.

3.3.4. *English Numbers and Quantifiers*

In English, numbers and quantifiers occur before pre-modifiers and nouns. All the numbers and quantifiers are located in the determiner slot (Greenbaum & Nelson 2002, p. 110). Cardinal numerals and ordinal numerals are post-determiners. Leech

and Svartvik (2013, p. 205) clarify that post-determiners follow central-determiners but come before pre-modifiers. Quantifiers, on the other hand, can be pre-determiners (*all, double, twice, one-third,* etc.), central determiners (*some, any, no,* etc.), or post-determiners (*many, few, little,* etc.) (Leech & Svartvik, 2013, p. 206). The following Table 3.5 illustrates all possible numeral, quantifier and determiner combinations.

Table 3.5. English Numbers and Quantifiers

Numerals	Types	Det. Combination	Noun Type	Examples
Cardinals	One	Can be preceded by central determiners	Singular count nouns	The *one* aunt
	Two, three, four, etc.	Can be preceded by central and post-determiners	Plural count nouns	The *three* uncles The first *three* students
Ordinals	First, second, third, etc.	Preceded by central determiners	Plural count nouns	The *first* three students
	General ordinals: next, last, other, further, etc.	Can be preceded or followed by central determiners and usually precede cardinal numbers	Plural count nouns	The *next* two lectures
	Another (combination of an + other)	Can be preceded by central determiners and followed by cardinals (two, three, four, etc.)	Singular and plural count nouns	I am going to read *the other* two books
Quantifiers	all, both, half a lot of, double, twice, three times, etc.	Can be followed by other determiners	Plural count and non-count nouns	*All* the trees *Both* of them *Half* the class *A lot of* my friends *Double* the amount *Twice* the size
	Decimals: one-third, two-fifths, etc.	Can be followed by other determiners	Singular count nouns	*One-third* of the class
	every each, either, neither, etc.	Can be preceded by pre-determiners and followed by post-determiners	Singular count nouns	*Every* student *Each* student
	Some any, etc.	Can be preceded by pre-determiners and followed by post-determiners	Plural count and non-count nouns	*Some* students *Any* sugar
	Many, few, fewer, several	Can be preceded by central determiners and possessive pronouns	Only with plural count nouns	The *few* people His *many* friends
	Much, (a) little	Can be preceded by pre-determiners	Only with non-count nouns	*Much* salt *Little* time
	More	Can be preceded by other post-determiners (e.g., *two, much, several*)	Plural, non-count nouns (occasionally singular non-count nouns)	I need some *more* time I need two *more* days I need two *more* milkshakes
Quantifiers	Quantifying phrases: A couple of None of the A lot of	Can be followed by a central determiner	Plural count nouns; some with both plural count and non-count nouns	*A couple of* students *None of the* students *A lot of* students *A lot of* sugar
	Quantifying phrases: deal, amount	Can be preceded by central determiners and articles	Only with non-count nouns	A great *deal* of fun A large *amount* of money

3.3.5. *English Adjectives*

Adjectives are words that describe or modify other words (e.g., nouns), making them more specific (Huddleston & Pullum, 2007, p. 112). Adjectives do not modify verbs, adverbs and other adjectives. For example, words such as *small*, *blue* and *sharp* are examples of adjectives that describe nouns. Adjectives, sometimes, act as a complement; e.g., this cow is *happy*. Adjectives are used to identify or quantify people or things, and they are, with rare exceptions, positioned before the noun they modify, when they function as pre-modifiers, e.g., the *large* house.

3.3.5.1. Adjective functions

Greenbaum and Nelson (2002, p. 68) identify four functions for adjectives:

1. Pre-modifier of a noun, e.g., a *comfortable* ride.
2. Subject complement, e.g., the ride was *comfortable*.
3. Object complement, e.g., my parents made me *aware* of my responsibilities.
4. Post-modifier object complement, e.g., I made the bed *comfortable*.

Huddleston and Pullum (2007, p. 120) specify two major functions of adjectives: a) attributive modifier, e.g., an *excellent* result (it appears in the noun phrase and modifies it); and b) predicative complement, e.g., the results are *excellent* (it appears outside the noun phrase that it modifies and is usually preceded by a linking verb). These two uses can occur with almost all adjectives, but some are restricted to the attributive use (e.g., a *sole* parent, but not *the parent was *sole*). Conversely, a few adjectives cannot occur attributively (e.g., the man was *asleep*, but not *an *asleep* man).

In the case of attributive adjectives, we can differentiate between descriptive, e.g., her *beautiful* eyes, and classifying pre-modifiers, e.g., a *polar* bear. Descriptive modifiers may have modifying intensifiers, e.g., the *very pretty* girl, whereas

classifying modifiers do not allow intensifiers, e.g., *a *very polar* bear (Gregori & Garcia, 2008, p. 106).

3.3.5.2. Adjective features

The distinctive features of adjectives are as follows:

- Adjectives modify nouns and usually precede them.
- Nouns also function as adjectives to modify other nouns: the *school* girl.
- Adjectives have three degrees of comparison: positive, comparative, and superlative (Greenbaum & Nelson, 2002, p. 97).
- Adjectives sometimes function as nouns. For example: the *French* are proud of their language; the *rich* have a responsibility to help the poor.
- Participles can also function as adjectives (i.e., as modifiers for the noun) in a noun phrase (Kirszner & Mandell, 2008, p. 587; Leech & Svartvik, 2015, p. 251). Examples: *hidden* devices; *annoying* children; the *annoyed* customer.

3.3.6. *English Prepositions*

A preposition is a word that normally precedes a NP to express the relation between two constituents in relation to space and time, e.g., *at the office*, *after lunch* (Huddleston & Pullum, 2007, p. 128). Prepositions that "modify" nouns are considered "post-modifiers" (Huddleston & Pullum, 2007, pp. 140-143), and usually complement a NP. Furthermore, when the preposition modifies the NP, it is considered to belong to the NP (Quirk et al., 1985, p. 1288).

The number of English prepositions compared to many other languages is extensive; Essberger (2009, p. 6) noted that there are 150 prepositions in the English language, among them 94 one-word prepositions (which are unlikely to change or be added to), and 56 complex prepositions, such as: *as for, apart from* etc. (which may

possibly be added to as the language evolves). Finally, Huddleston and Pullum (2012, pp. 618-626) explained that one of the complexities of English prepositions is the use of expressions that may not exist in other languages. In addition, they clarified that some of them follow certain formulas that may not relate to forms in other languages:

- Preposition + noun expressions: e.g., *in person*, *on time*, *at school*; or preposition + determinative + noun: e.g., *with one voice*. This is in addition to other uses of *in*, *on*, *at*, *beneath*, *below*, and *over*.
- Preposition + expression + preposition + noun: e.g., *for the sake of his son*.
- Preposition + expression + specific preposition as part of the idiom: e.g., *in accordance with*, *in case of*, *in front of*, *in addition to*, *by virtue of*, *on account of*, *with reference to*.

3.4. The Arabic Noun Phrase

In this section, a description of the constituents of the Arabic NP follows the same "classifications" set by Greenbaum and Nelson (2002), Huddleston and Pullum (2007), Leech and Svartvik (2013), and Quirk et al. (1985) for the English NP, as presented in the previous section. The section is derived mainly from references of Arab grammarians, in addition to other relevant resources (Al-Ghalayini, 2010; Al-Najjar, 2014, pp. 170-176; Al-Zobaidy, 2016, p. 61; Beina, 2013; Hasan & Abdullah, 2009, pp. 5-10; Hobi, 2011, pp. 269-273; Jawad, 2015, pp. 286-305; Qasim, 2014, p. 84; Wightwick & Gaafar, 2005, pp. 69-70). The different uses of Arabic NP subcategories are analysed in the same way as in the previous section, to allow easier comparison. In the examples that follow, words have been glossed using the Leipzig rules (Comrie, Haspelmath, & Bickel, 2015).

3.4.1. *Arabic Nouns*

3.4.1.1. Noun types

Arabic nouns are defined as words that denote a person, animal, place, or thing. They are separated into two categories:

1. Common nouns are general names. These can be singular, dual, or plural. They attach a gender to each (masculine or feminine), e.g., name of a thing, such as *walad*, boy; *bent*, girl; *kalib,* dog. In common nouns, a definite article *al-* is attached as a prefix to the noun to indicate definiteness, and its absence shows indefiniteness (Al-Ghalayini, 2010, pp. 98-115).
2. Proper nouns are specific names, e.g., *Mohammad, Ali, Fatima, London*. They are definite without *al-*. Definiteness is marked with some proper nouns, including *al-hajailan*, *al-riyadh* (the capital city of Saudi Arabia) and specifies a specific person or place, but this does not occur as a rule, e.g., *Paris* (Al-Ghalayini, 2010, pp. 98-115).

3.4.1.2. Noun features

Arabic nouns have four features:

1. Person: refers to the utterer of a statement in relation to the subject: 1st person (*Ana*), 2nd person (*Anta, Anti, Antuma, Antum, Antunna*), or 3rd person (*Mohammad, Dina*).
2. Number: refers to whether a noun is singular (one) or plural (more than one). The singular is formed identical to the lexical base, whereas plurals are formed by adding suffixes to the lexical base. Proper nouns cannot be plural, whereas common nouns can be dual and plural, e.g., *far* SG, ‘mouse’; *faran* Dual (DU), ‘two mice’; *feeran* PL ‘mice’.

3. Gender: refers to whether a noun is masculine (*Ahmad* M, *Rajul* M), feminine (*Fatima* F, *Sayyda* F), or animal/object (*Asad* M, 'lion'; *Dajaja* F, 'chicken'; *Kursi* M, 'chair'; *Nafizhah* F, 'window'). As seen in the above examples, in Arabic, there are only two genders: masculine and feminine (Salim, 2013, p. 131; Qasim, 2013, p. 78). English has only natural gender (gender as related to sex), whereas Arabic has grammatical gender (as a linguistic type).
4. Case: indicates the relation of the noun to other elements in the sentence. The three cases are nominative (*Esm* NOM), accusative (*Mafoul boh* ACC), and genitive (*Milkiah* GEN). There is no form of possessive ('s) in Arabic similar to the English one. The genitive case includes the possessive pronoun (suffix) at the end of the noun to indicate possession (*kitab-ha*, 'her book').

Furthermore, Arabic has a particular syntactic construction, called the "construct state" that expresses a genitive relationship between two nouns. In this construction, one noun is considered the head and the "owner" of the other noun, the "possessed". Ownership is the common relation between the "possessive" and the "possessed". The possessed noun, in Arabic, comes first; this is then followed by the owner (Al-Ghalayini, 2010, p. 12). The following examples show the possessed followed by the owner in the Arabic possessive construct:

- *raas al-afaa*, head the-snake, the head of the snake, or the snake's head.
- *haffatu al-nahr*, bank the-river, the bank of the river, or the river bank.

3.4.2. *Arabic Pronouns*

Al-Ghalayini (2010, p. 115) noted that pronouns are considered part of the noun class, and that they also substitute nouns for the speaker or writer (*ana* = I), the reader or addressee (*anta* = you) and the absent (3rd person: *howa* = he). The following are types of pronouns that are related to NP.

3.4.2.1. Personal pronouns

There are two basic types of pronouns in Arabic: independent (detached) and dependent (attached) (Al-Ghalayini, 2010, pp. 116-126).

3.4.2.1.1. Independent pronouns

Independent pronouns take the place of nouns in accordance with person, number, gender, and case, and are definite because they replace nouns.

Example:

Ana	*bent-on*	*qaweyya-ton*
I (DEF.1SG)	girl (F)-NOM.INDF.SG	strong (F)-NOM.IND.SG

"I am a strong girl"

The Arabic language has twelve forms of personal independent pronouns, as demonstrated in Table 3.6:

Table 3.6. Arabic Independent Pronouns

Number	Arabic	English
SG	*ana*	I (N)
	anta	you (M)
	anti	you (F)
	howwa	he (M)
	heyya	she (F)
DU	*nahnu*	we (N.DU)
	antuma	you (N.DU)
	humma	they (N.DU)
PL	*nahnu*	we (N)
	antum	you (M)
	antunna	you (F)
	homa	they (M)
	hunna	they (F)

There is no equivalent of the neuter pronoun *it* 'it' in Arabic to refer to an animal or object; Arabic uses *he* and *she* instead, as every noun has masculine or feminine gender.

There are various forms of *you* in Arabic. The 2nd person pronoun *you* carries more specific information about number, gender, and case (Al-Zobaidy, 2016, p. 61; Qasim, 2013, p. 84).

Examples:

a. *Ant-a* *taleb-on*
You-M.SG Student(M)-SG
'You are a student'

b. *Ant-oma* *taleb-an*
You-M.DU Student (M)-DU
'You (both) are students'

c. *Ant-om* *tulaab*
You-M.PL Students (M.PL)
'You (all) are students'

d. *Ant-i* *taleba-ton*
You-F.SG Student (F)-SG
'You are a student'

e. *Ant-oma* *taleba-tan*
You-F.DU Student (F)-DU
'You (both) are students'

f. *Ant-onna* *Taleb-at*
You-F.PL Students-F.PL
'You (all) are students'

3.4.2.1.2. Dependent pronouns

Arabic dependent pronouns are in the accusative case; they are added as suffixes to either: verb(s), e.g., *katabah-u,* 'wrote it'; or to preposition(s), e.g., *sarakha-alai-h, '*shouted at him'. There are twelve dependent pronoun forms (Al-Ghalayini, 2010, p. 115), as shown in Table 3.7:

Table 3.7. Arabic Dependent Pronouns

Number	Arabic	English
SG	*-ni*	me (N)
	-ka	you (M)
	-ki	you (F)
	-hu	him (M)
	-ha	her (F)
DU	*-na*	us (N.DU)
	-kuma	you (N.DU)
	-huma	them (N.DU)
PL	*-na*	us (N)
	-kum	you (M)
	-kun	you (F)
	-hum	them (M)
	- hunna	them (F)

3.4.2.2. Possessive pronouns

Possessive pronouns in the Arabic language are dependent suffixes that are attached to the end of a noun to express possession (Al-Ghalayini, 2010, p. 121): they are not free morphemes, i.e., independent lexical items. Possessive pronouns do not change in case. There are seventeen possessive pronouns in Arabic:

Table 3.8. Arabic Possessive Pronouns

Number	Arabic	English
SG	*-i*	my
	-ka	your (M)
	-ki	your (F)
	-hu	his (M)
	-ha	her (F)
DU	*-na*	our (N.DU)
	-kuma	your (N.DU)
	-huma	their (N.DU)
PL	*-na*	our (N)
	-kum	your (M)
	-kunna	your (F)
	-hum	their (M)
	-hunna	their (F)

The above example shows no difference in case between the possessive pronoun in nominative case *-i* and the object pronoun *–i* in the accusative case. Both have the same form in Arabic (syncretism).

3.4.2.3. Demonstrative pronouns

Arabic demonstratives are used to point to a person, place, or thing. They can also come in the subject (*mubtada'a*) position in Arabic. Demonstrative pronouns are definite (*ma'arefah*) (Al-Ghalayini, 2010, pp. 127-129). Table 3.9 illustrates the Arabic demonstrative pronoun forms:

Table 3.9. Arabic Demonstrative Pronouns

Near	Distant	Gender and Number
hatha (this)	*thaleka* (that)	M.SG
hathehi (this)	*telka* (that)	F.SG
hathan (these)	*thaneka* (those)	M.DU
hatan (these)	*taneka* (those)	F.DU
haa'ola' (these)	*ola'eka* (those)	N.PL

Like other pronouns, Arabic demonstratives agree with the noun in definiteness, person, number, and gender.

Examples:

a. *hatha* *al-rajul*
this.DEF.M.SG the-man.DEF.M.SG
'this man'

b. *hathan* *al-rajulan*
these.DEF.M.DU the-men.DEF.M.DU
'these (two) men'

c. *haa-ola'* *al-rejal*
these.DEF.M.PL the-men.DEF.M.PL
'these men'

3.4.2.4. Relative pronouns

A relative pronoun is a pronoun that refers to a noun or a pronoun that precedes it (the antecedent). Arabic relative pronouns have 11 different forms (Al-Ghalayini, 2010, pp. 130-138). All the forms below exhibit agreement with the noun in definiteness, number, and gender:

Table 3.10. Arabic Relative Pronouns

Feminine			Masculine		
Plural	Dual	Singular	Plural	Dual	Singular
al-lati	*al-latani*	*al-lati*	*al-latheena*	*al-lathani*	*al-lathi*
al-lawati *al-la'ai*	*al-latayni*		*al-ola*	*al-latheena*	

Examples:

a. Al-rajul	*al-lathi*	*qabal-to-ho*
The-man (M)-DEF.SG	The-whom (M.DEF.SG)	met-I-him (M.SG)
'The man whom I met'		
b. *Al-rajul-an*	*al-lath-an*	*qabal-to-homa*
The-man (M)-DEF.DU	The-whom (M.DEF.DU)	met-I-them (M.DU)
'The (two) men whom I met'		
c. *Al-rijaal*	*al-lathi-na*	*qabal-to-hom*
The-men (M)-DEF.PL	the-whom (M.DEF.PL)	met-I-them (M.PL)
'The men whom I met'		
d. *Al-bint*	*al-lati*	*qabal-to-ha*
The-girl (F)-DEF.SG	the-whom (F.DEF.SG)	met-I-her (F.SG)
'The girl whom I met'		
e. *Al-bint-an*	*al-lat-an*	*qabal-to-homa*
The-girl (F)-DEF.DU	the-whom (F.DEF.DU)	met-I-them (F.DU)
'The (two) girls whom I met'		
f. *Al-banat*	*al-laati*	*qabal-to-hun*
The-girls (F)-DEF.PL	The-whom (F.DEF.PL)	met-I-them (F.PL)
'The girls whom I met'		

3.4.3. *Arabic Articles*

Arabic articles are affixes. The definite article *al* or *el* is attached to the noun, e.g., *al-rajul*, 'the man'. The indefinite article (English *a*/*an*) is usually absent in Arabic (Beina, 2013); it is understood but not written (it can be written only in formal Arabic contexts by using "nunation" which is a sound *[un]* added to the end of a SG noun to indicate singularity, e.g., *rajul(un)*, 'a man'; *tofahat(un)*, 'an apple'). The definite article *the* allows definite Nouns to express generic meaning (including singular, plural, abstract or mass nouns); example: the money, the time, the headache, etc. (Abu-Chacra, 2018; Jaber, 2014).

3.4.4. *Arabic Numbers and Quantifiers*

Numbers and quantifiers are pre-modifiers in Arabic and behave like adjectives. Like prenominal adjectives, prenominal numbers and quantifiers do not always agree in definiteness, gender, and case with the noun they modify. In a very

few cases, they come post-nominally, and when they do, numbers must agree with the noun in definiteness, number, and case (Al-Ghalayini, 2010, pp. 17-18; Al-Najjar, 2014, pp. 170-173).

Example:

a. *Al-kutub-o* *al-thalath-atu*
the-books (M)-NOM.DEF the-three(M)-NOM.DEF
'The three books'

However, some quantifiers like *kul* 'all' and *ba'adh* 'some' have to agree with the noun (usually only) in case and number even when used pre-nominally, and they take a personal attached pronoun (Al-Ghalayini, 2010, p. 18).

Example:

b. *Al-nas-u* *Kullu-hum*
the-people-NOM.PL all-NOM-them.PL
"All the people"

Generally, Arabic numerals do not agree with the noun in definiteness and case if they occur pre-nominally, and do agree if occurring post-nominally. In gender, some numbers agree or disagree with the noun according to the specific rules. (Al-Ghalayini, 2010, pp. 17-18; Al-Najjar, 2014, pp. 170-173).

3.4.4.1. Cardinal numbers

Cardinal numbers occur pre-nominally and post-nominally. The following are different agreement rules of numbers with the noun:

- Rule 1: Numbers 1 and 2 are irregular; they follow the singular noun and agree with the noun in number, gender, and case. For example:

a. *Walad* *Wahed* b. *Laylatan* *ethnan*
boy (M.SG) one (M.SG) night (F.DU) two (F.DU)
'One boy' 'Two nights'

- Rule 2: Numbers 3 to 10 agree with the plural noun in definiteness, but take the opposite gender if they occur after the noun; they act like adjectives and follow the noun in definiteness and may or may not agree with it in gender. For example:

a. *thalathatu* *Awlaad*
three (F. PL) boys (M. PL)
'Three boys'

b. *Al-banat* *althalatha*
the girls (F.PL) the three (F.PL)
'The three girls'

- Rule 3: Numbers 11 and 12 are also irregular compounds, as they agree with the noun in gender, but not in number. Smaller numbers are read/written first. For example:

Ehda *ashar* *Talib*
one (M.PL) ten student (M.SG)
'Eleven students'

- Rule 4: Numbers 13 to 19 do not agree in number or gender with the noun. Small numbers up to ten are spelt out. For example:

a. *Thalathatu* *ashar* *walad*
three (F.PL) ten boy (M. PL)
'Thirteen boys'

b. *Thalathu* *ashar* *bent*
three (M.PL) ten girl (F)
'Thirteen girls'

- Rule 5: Numbers 21 to 99 add *wa* or *and* between the two numbers, and smaller numbers are read/written first, e.g., 36 = six and thirty (Al-Ghalayini, 2010, pp. 16-18). They follow the previous gender agreement rules, with 1 and 2 agreeing and 3-9 non-agreeing (taking the opposite gender). For example:

a. *wahed* *wa* *Tiso'oon* *taleb*
one (M) and ninety student (M.SG)
'Ninety-one students'

b. *Thalathun* *wa* *sitoon* *bent*
three (M) and Sixty girl (F.SG)
'Sixty-three students'

- Rule 6: Numbers 20-90 have a neutral (N) form for gender, and disagree with the noun in number (see Rules 1 and 2 above). When these numbers occur

post-nominally (see example: c below), they receive the same case of the noun in definiteness and number (see Rule 3 above). For example:

a. *thalatheen*	*walad*	b. *thalatheen*	*bent*	c. *Al-banat*		*al-thalatheen*
Thirty (N.PL)	boy (M.SG)	thirty (N.PL)	girl (F.SG)	the-girls (F.P((F.PLU)		the-thirty (N.PL)
'Thirty boys'		'The thirty girls'		'The thirty girls'		

- Rule 7: Numbers 100-900, like the previous numbers 20-90, have a neutral form for gender, and the noun is in the singular form. For example:

a. *Khamsuma'at*	*Walad*	b. *Khamsuma'at*	*bent*
five hundred (N.PL)	boy (M.SG)	five hundred (N.PL)	girl (M.SG)
'Five hundred boys'		'Five hundred boys'	

- Rule 8: 1000+: the previous rules apply.

3.4.4.2. Ordinal numbers

Ordinal numbers in Arabic act like adjectives, so they agree with the noun in gender and definiteness. They are almost like cardinal numbers but with two exceptions: a) numbers from 1 to 10 follow the noun in gender and definiteness; and b) there is a different treatment of the numbers from 11 up.

Examples:

a. *Alwalad*	*Althaleth*	b. *Albent*	*althalatheen*
the boy (M. SG)	the third (M. SG)	the girl (F. SG)	the thirtieth (N.PL)
'The first boy'		'The thirtieth girl'	

Same in gender and definiteness. Different in number.

3.4.4.3. Quantifiers

Quantifiers are words or phrases which are used to indicate the amount or quantity (Jawad, 2015, p. 286). They belong to the wider class of determiners. Arabic quantifiers act like adjectives, and they precede nouns. All quantifiers agree in gender with the noun (Al-Najjar, 2014, pp. 174-176).

Table 3.11. Arabic Quantifiers, Multipliers, and Decimals

Quantifiers, multipliers, and decimals	Arabic		
	M	F	N
all	*kull*	*Kull*	_
some, a few, little	_	_	*ba'adh*
any, each, either, which, what	*ayye*	*ayate*	_
a little, few	*qaleel*	*qaleela*	_
many	*katheer*	*katheera*	_
both	*kila*	*kilta*	_
one-fifth	_	_	*khums*
double, twice, etc.	*da'ef*	_	*dae'f, maratan,* etc.

- In Arabic, *kull* means 'every/each', when followed by an indefinite singular noun head (*kull tefl*, 'every child-SG'), but when it is followed by a definite plural (pro)noun, it means 'all', e.g., *kull al-atfal*, 'all the children-PL' (Jawad, 2015, p. 301).
- Similarly, *ba'adh*, 'some', is also the Arabic equivalent for the English quantifier *few* and *little* (Jawad, 2015, p. 304).
- *Ayye* and *ayate* is the Arabic equivalent for the English quantifiers *any, either, and neither*. For example:

Arabic:	*Yumken-ku-ma*	*ann*	*Ta'kul-a*	*Ayat-e*	*Al-tabaq-ain*
	Can-you-DU	that	eat-DU	either-ACC	the-dish-DU

English: 'You can have either dish'. (Jawad, 2015, p. 206)

As shown in the examples above, unlike English, Arabic quantifiers are generally inflected for case (in some instances, they may also be inflected for gender) (Jawad, 2015, pp. 205-206).

3.4.5. *Arabic Adjectives*

Arabic adjectives are typically post-nominal, e.g., *zahra jamila*, 'rose beautiful'. Arabic adjectives are usually considered a sub-class of nouns (Hobi, 2011, p. 273).

Arabic adjectival phrases must agree with the noun in gender, number, definiteness, and case (Al-Ghalayini, 2010, p. 97; Hobi, 2011, pp. 269-270; Qasim, 2013, p. 75). For example:

Al-ketab-o	*Al-ahmar-o*
the-book (M)-NOM.DEF.3SG	the-red (M)-NOM.DEF.3SG
'The red book'	

When Arabic adjectives occur pre-nominally, they do not have to agree in gender, number, definiteness, and case with the noun they modify (Al-Ghalayini, 2010, p. 100; Wightwick & Gaafar, 2005, p. 35). Arabic adjectives have the following characteristics, which are similar to English adjectives in many ways.

- Adjectives modify nouns and usually follow them in NP location.
- Nouns also function as adjectives to modify other nouns.
- Adjectives have three degrees of comparison: adjective, comparative, and superlative: *kabeer, akbar, al-akbar* (Wightwick & Gaafar, 2005, pp. 69-70).
- Adjectives sometimes replace nouns when they fulfil the noun's purpose and function as nouns.
- There are no participles in Arabic which could function as adjectives (modifiers for the noun are adjectives or nouns).

3.4.5.1. Adjective agreement

Arabic noun-adjectives normally agree with the noun in definiteness, gender, number, and case, as illustrated below.

Examples of agreement in definiteness:

a. Al-zawja-to al-qawea-to	b. *Al-rajul-o al-qawee-o*
the-wife-DEF the-strong-DEF	the-man-DEF the- strong-DEF
'The strong wife'	'The tall man'

Examples of agreement in gender:

a. *Al-rajul* *al-qawee*
the-man (M) the-strong (M)
'The strong man'

b. *Al-binto* *al-qawea*
the-girl(F) the- strong(F)
"The strong girl"

Examples of agreement in number:

a. *Al-rajul* *al-qawee*
the-man(SG) the-strong(SG)
'The strong man'

b. *Al-rejaal* *al-aqwia'a*
the-men(PL) the-strong(PL)
'The strong men'

Examples of agreement in case:

a. *Al-jondi-o* *al-qawee -o*
The-soldier-NOM the-strong-NOM
'The strong soldier'

b. *Al-jond* *Al-qawee*
the-soldier-ACC the-strong-ACC
'The strong soldier'

In very rare instances, for example when the Arabic adjectives come before the noun, they do not agree with the noun in case and number (example a); and sometimes not in gender (example b).

Examples of disagreement:

a. *Jadeed-o* *al-kotob-i*
newest (INDF.SG)-NOM the- books(DEF.PL)-GEN
'The newest books'

b. *Latheeth-o* *al-fakihaha-ti*
delicious (M.SG)-NOM the-fruit (F.PL)-GEN
'The (most) delicious of fruit'

3.4.6. *Arabic Prepositions*

As in English, Arabic prepositions link nouns, pronouns, or phrases to other words in a sentence (they connect two words). For example, *Al-koob ala a-ltaweela,* 'The *cup* is on the *table'* or *Ukhti fee London,* 'My *sister* is in *London'*.

There are 20 Arabic prepositions, of which eight are the most important and commonly used (*ba, min, ila, ann, ala, fee, ka, la*) (Al-Ghalayini, 2010, p. 167).

Table 3.12. Arabic Prepositions

Arabic Prepositions	English Meaning	English Equivalent
bi-	with	by, with
min	from	from
ila	to	to
ann	from	from
ala	on	at, on, above, over
fee	in	at, in, on, during
Ka-	like	like
li-	to	to

As illustrated in Table 3.12, the following are characteristics of Arabic prepositions:

1. Arabic prepositions always precede a noun, e.g., *min al-kitab* 'from the book' or a pronoun, e.g., *min-ha* 'from her'
2. They can be a single dependent letter, e.g., *bi-, ka-,* and *li-*, or an independent word, e.g., *min, ila, ann, ala,* and *fee.*
3. All prepositions are dependent when followed by a pronoun, e.g., *min-ha* 'from her', *bi-ha* 'with her'; *min al-kitab* 'from the book', *bi-al-kitab* 'in the book' (Al-Ghalayini, 2010, pp. 197-203).
4. Not every English preposition has an exact equivalent in Arabic and vice versa (Hasan & Abdullah, 2009, pp. 5-10). A good example is illustrated in the above table, of the Arabic preposition *fee* as equivalent to the English prepositions 'at, in, on, and during'.

3.5. The Major Differences Between Arabic and English Noun Phrases

Based on the above outline, the following major points of differences between the two sets of nominal components can be identified:

1. Unlike English, Arabic has richer agreement rules, i.e., in number, gender, case, and definiteness (Shamsan & Attayib, 2015, p. 149).

2. "English involves a simple two-way number contrast between singular and plural" (Affandi, 2011, p. 54), whereas Arabic nouns have a three-way number contrast: singular, plural, and dual (Rabadi, 2016, p. 25; Salim, 2013, p. 131). In other words, Arabic and English share singular and plural concerning numbers. However, Arabic has a dual feature that occurs as a suffix that does not exist in English. There are few instances of dual in English, such as both, (n)either.

3. English nouns, regardless of their gender, are made plural simply by adding the suffixes *-s* or *-es* (e.g., *boys*, *branches*). Some nouns have an irregular plural form, e.g., *children* (Shamsan & Attayib, 2015, p. 149). Arabic, on the other hand, has three plural forms: masculine, e.g., *jazaroon*, 'butchers'; feminine, e.g., *mustashfyat*, 'hospitals'; and irregular, e.g., *tolaab*, 'students' (Salim, 2013, p. 131).

4. Arabic has a grammatical gender (as a linguistic type), i.e., masculine and feminine, while English has a natural gender (gender as related to sex), which is limited to personal pronouns, i.e., masculine, feminine, and neuter; (Qasim, 2013, p. 78; Salim, 2013, p. 131).

5. English nouns are simply inflected for number (e.g., plural –s) and case (e.g. possessive – 's), in addition to a short list of irregular nouns. While Arabic nouns, on the other hand, are inflected for definiteness, e.g., *al-bent*, 'the girl'; number, e.g., *bent-ain*, 'two girls'; gender, e.g., jameel-a 'beautiful'; and case, e.g., jameela-ton 'beautiful' (Shamsan & Attayib, 2015, p. 149).

6. Many Arabic proper nouns have a definite article (*al*) to make them distinct from the general meaning; this is especially true for names of families and cities, e.g., *riyadh* (a common noun) means 'a garden', while *Al-riyadh*

(turned into proper with definite *al*) is the capital city of Saudi Arabia, and this may cause confusion for Arab EFL learners (El Werfalli, 2013, p. 102). English has very few proper nouns that have a definite article, e.g., *the Thames*, *the USA*.

7. Unlike English, the Arabic definite article is not a free word. It is always a prefix attached to the noun (El Werfalli, 2013, p. 87). Arabic definite article is used more frequently than English and used with all noun types; for example: proper, mass, abstract, etc. (Jaber, 2014).

8. The indefinite article *a*(*n*) does not exist in Arabic (Beina, 2013; El Werfalli, 2013, p. 108; Thyab, 2016, pp. 2-3). Indefiniteness can be expressed in spoken Arabic through nunation, i.e. an affixation of [*un*] to the end of nouns, such as *kutub-un* (Beina, 2013, p. 11). Arabic nunation, however, is only used in very formal situations, and not in everyday speech.

9. The English possessive *'s* does not exist in Arabic. Arabic uses the possessive construct or possessive pronouns instead (Lester, 2008, p. 15), e.g., *qallam Al-talibah* 'the student's pen', literally pen the-student. If literally translated into English, the word order is incorrect because the modifying noun comes before the head noun (Qasim, 2013, p. 66).

10. Pronouns in Arabic make more distinctions and more forms than those in English, i.e., in person, number, gender, and case (Salim, 2013, p. 131).

11. Unlike English personal pronouns, which are free morphemes in the object case, e.g., *wrote it*, Arabic personal pronouns are affixed to either the verb or the preposition, e.g., *kataba-hu*, 'wrote it', *alayhu-mu*, 'on them'. In addition, unlike English where possessive pronouns in both cases (nominative and accusative) are free morphemes, e.g., *my car*, Arabic ones are affixed to

the noun preceding it in both cases, e.g., *baito-ha*, 'her house' (Al-Ghalayini, 2010, p. 116).

12. There is no gender distinction in English "between 2nd person singular and plural" (Salim, 2013, p. 131), while in Arabic, 2nd person pronouns express information about number (singular, dual, and plural) and gender (masculine and feminine), and case (nominative and accusative) which results in 12 forms for the 2nd person pronoun (*you*) (Al-Zobaidy, 2016, p. 61; Qasim, 2013, p. 84).

13. There is no equivalent for the neuter pronoun *it*/*its* in Arabic (Al-Zobaidy, 2016, p. 64).

14. There are only six forms of English demonstratives, whereas in Arabic there are 14 different demonstratives that differ in form according to number (singular, dual, and plural) and gender (masculine and feminine) (Al-Zobaidy, 2016, p. 67; Ghubin, 2006, p. 27; Rabadi, 2016, pp. 20-22; Salim, 2013, p. 131).

15. Unlike English, in Arabic the demonstrative pronoun requires the object noun to have the definite article *al-*, e.g., *hatha Al-bait* 'this house', literally this the house (El Werfalli, 2013, p. 107). In addition, Arabic allows a combination of personal and demonstrative pronouns, e.g., *Hath-ihi heyya mualim-a-ti* 'this is my teacher', literally this she teacher my. In English, combining the two pronouns would be ungrammatical, e.g., **This she* is my teacher (Rabadi, 2016, p. 22).

16. English and Arabic differ in their relative pronouns in the following ways (Abood, 2015, p. 1082; Affandi, 2011, p. 54; Hamdallah & Tushyeh, 1998, p. 150):

i. Arabic has eight different forms of relative pronoun (*al-lathi*), whereas English has only five forms of relative pronouns: *who*, *whom*, *which*, *whose*, and *that*.

ii. In Arabic, there is no direct equivalent to the English possessive relative pronoun *whose*.

iii. Unlike English, Arabic relative pronouns agree with the antecedent in number, gender, and case. They are definite by nature and combine with definite antecedents only.

17. Cardinal numbers in Arabic are mostly inflected for gender, and usually there is gender disagreement between each numerical group. The cases (nominative, accusative, or genitive) govern both the number and the things numbered according to their position in the sentences. Therefore, Arabic has specific, complex rules, whereas in English, simpler rules apply (Jawad, 2015, pp. 290-291).

18. The Arabic numbers 21-99 are generally printed from left to right, but read from right to left. For example, in Arabic 45 is written *khamsa wa arba'oon* [five and forty], as opposed to the English *forty-five* (Maisel, 2015, p. 113).

19. In English, small numbers are most often spelt out as words (one to nine) and larger numbers over ten are given as numerals. In Arabic, numbers are mostly written as numerals (Badawi, Carter, & Gully, 2015, p. 257).

20. Unlike English, in Arabic a comma is omitted in larger numbers, e.g., 1256,00 but is used as a decimal-separator (Maisel, 2015, p. 113), whereas in English, a comma is present in larger numbers of four or more digits, and a dot is used as a decimal separator, e.g., 1,256.90 (Badawi et al., 2015, p. 257).

21. Unlike English, Arabic ordinal numbers (units from 2-10) may follow the noun and the adjective, and can precede the adjective and noun, e.g., a) *Al-Malika Elizabeth al-thanya* 'the Queen Elizabeth the Second'; b) *Thani akbar dawlah* 'the second largest country', (Badawi et al., 2015, pp. 271-272).

22. Unlike English, Arabic cardinal and ordinal numbers have distinct patterns and follow rules of agreement and word order (Maisel, 2015, p. 113).

23. Some Arabic quantifiers are equivalent to more than one English quantifier, for example: (a) *kull* is equivalent to *every* or *each*; (b) *ba'adh* is equivalent to *some*, *few*, and *little*, and (c) *ayyu* is equivalent to *any*, *either*, and *neither* (Jawad, 2015, pp. 206-304).

24. Unlike English, Arabic quantifiers are generally inflected for case (in some instances, they may also be inflected for gender) (Jawad, 2015, pp. 205-206).

25. In English, adjectives are a distinct word class (part of speech), whereas Arabic adjectives are usually considered a sub-class of the noun (Hobi, 2011, p. 273).

26. Arabic adjectives usually occur post-nominally, i.e., they post-modify the noun, e.g., *bent thakyyah, '*smart girl*'.* In contrast, English adjectives usually pre-modify the noun, as in *smart* girl (Hobi, 2011, p. 273).

27. Unlike English, the Arabic adjective must be in full agreement with the noun in definiteness (definite or indefinite), number (singular, dual, or plural), gender (feminine or masculine), and case (nominative or accusative) (Hobi, 2011, pp. 269-270; Qasim, 2013, p. 75).

28. Unlike English, Arabic has only 20 prepositions, eight of which are the most important and commonly used, while there are 150 prepositions in

English (Essberger, 2009). This is why not every English preposition has an exact equivalent in Arabic and vice versa (Hasan & Abdullah, 2009, pp. 5-10). The Arabic preposition *fee*, *min* has several translation equivalents in English, i.e., it indicates movement *from* a point to another. The Arabic preposition *ala* corresponds to the English *on*, *over*, *above*, and *onto*. The Arabic preposition *bi* corresponds to the English *in* and *at*. The Arabic *li* corresponds to the English prepositions *to* and *for*. In short, Arabic has fewer preposition form and usage variations.

3.6. Conclusion

This chapter has described the most important differences between English and Arabic NPs and thus identified potential sources of error in English NP production by Arabic learners of EFL. First, it has clarified what the NP is, shedding some light on its structure in English. Secondly, it has identified the components of the English NP and their locations in the English NP structure. Thirdly, it has described and explained Arabic language NP components in a way parallel to the description of English in order to allow clear comparison. Finally, the differences between the two languages have been described to indicate potential sources for L2 errors.

The description of English and Arabic NP components has been provided to illuminate differences between the two languages. Analysing the differences makes it possible to locate some of the sources of Arabic interference in English writing. Interlanguage errors are largely due to L1 differences with L2. The noun and the pronoun (or any element functioning as a noun) is the key component in the NP, and its absence will result in non-existence of the NP. In addition to the noun (or functional equivalent), each of the obligatory and optional components in the NP

occupies a specific location or slot in the NP. The structural position, in combination with the agreement features, determines each NP component's link to the whole phrase. If the location or slot is filled with a misplaced component, this will result in an error. If any location or slot is filled with a component that would be appropriate in the student's native language but is considered inappropriate in English, it will be evaluated as an interlanguage error. In the light of the structures of English and Arabic NPs described so far, the following example of the two languages will show how errors may arise from using the L1 structure. Appropriate arrangement of the NP structure and appropriate agreement between NP components, on the other hand, will limit errors to a large extent. In Table 3.13, I present a typological classification system for the described NP structure and constituents. This will help explain word order errors in my error analysis.

Table 3.13. Example of the Structural Differences between English and Arabic NPs

Constituents	Pre-determiner	Central determiner	Post-determiner	Pre-modifier	Head	Post-modifier
Possible components in each slot	quantifiers, multipliers, or fractions	articles, possessive pronouns, or quantifiers	numbers or quantifiers	adjectives, adjectival phrases, or nouns	nouns, pronouns, adjectives or participles	prepositions, non-finite clauses, or relative clauses
English example:	all	the	thirty	smart	girls	in the classroom
	Q(PL)	ART (DEF)	NUM(PLU)	ADJ(INDF)	Noun(PL)	PP
Arabic example:	kull	*al-banat*	*al-thalatheen*	*al-thakyyat*	*fe al-fassel*	
	all (PL)	the-girls (DEF.PL)	the-thirty (DEF.PL)	the-smart (DEF.PL)	in the-classroom (DEF.SG)	

As shown in Table 3.13, displacing or misusing any of the NP components by Arab learners of EFL will produce syntactic errors.

This CA study has searched for descriptions of the elements of NP structures to find the differences between Arabic and English that may cause linguistic errors. The study found that errors may be attributed to one of two causes: a) the features of

the noun or any of its surrounding constituents, e.g., person, number, gender or case; or b) the slot assigned for the noun or any other constituent, e.g., misordering articles, adjectives, numbers, quantifiers, or prepositions. These observations lead to explorations of potential NP errors. Following are predictions for types of errors Arab EFL learners may make due to the structural and linguistic differences between Arabic and English:

In Nouns, a potential source of errors may be due to the differences in plurality between the two languages, such as: having uncountable nouns in English (such as information, money, advice, etc.) that are countable in Arabic and vice versa (AlKhuli, 2007; Diab, 1998; Sabbah, 2015). Another source might be due to the inflectional morphemes attached to the nouns in English: plural *s* and possessive marking *'s*, as they do not exist in Arabic (Lester, 2008, p. 15); students are expected to omit them (making errors of deletion); and/or in the case of expressing possession, use the Arabic structure instead, e.g., *fustan al bent* (literally: dress the girl), meaning 'the girl's dress'. As a result, errors are expected in misordering (Lester, 2008; Qasim, 2013).

As for Pronouns, the Arabic pronoun system is more complex than English (Igaab & Tarrad, 2019). It has distinct agreement features in person, number, gender, and case (Al-Zobaidy, 2016; Salim, 2013). In addition, Arabic accusative pronouns are suffixes added to serve as the objects of verbs, prepositions, referring back to a noun or a noun phrase (Abu-Chacra, 2018; M. Ahmed, 2014). Further, Arabic allows a combination of personal and demonstrative pronouns, *hathehi heyya almualema* 'this (she) is the teacher'. These differences might cause errors in misselection or addition.

In Articles, unlike English, indefinite articles are absent in the Arabic language (Abu-Chacra, 2018; Beina, 2013; Qasim, 2013), so learners are expected to omit them or use a definite article instead (deletions or misselections). The definite article *al* is used much more widely in Arabic than the definite article 'the' in English (Jaber, 2014). Some of the reasons are that nouns referring to abstract things, whole collectives and generic terms typically take the definite article (Abu-Chacra, 2018, p. 40), e.g. the time, the money, the love etc.; Nominal sentences in Arabic usually start with the definite noun (AlRajhi, 2011); the definite article in Arabic is frequently used with place names, e.g. school, class, house etc.; the definite article is used with names of parts of the body, and family relations and companions (Buckley, 2004); the definite article is used in Arabic with nouns with unique referents, such as days, weeks, meals, etc. (Buckley, 2004; El Werfalli, 2013). Given those differences, learners are predicted to mainly commit errors in deletions and additions.

In Numbers and Quantifiers, Some Arabic quantifiers are equivalent to more than one English quantifier; for example, *kull* may be equivalent to 'every', 'each', and 'all'. This may cause difficulties for the learners, resulting in errors of misselections; a distinction between English '*every, each'* and '*all'* for singular versus plural does not exist in Arabic. Moreover, Arabic numbers have specific, complex rules, they follow strict rules of agreement and word order (Maisel, 2015, p. 113), whereas in English, simpler rules apply (Jawad, 2015, pp. 290-291). Hence, errors are expected in misselection and misordering.

In Adjectives, the most obvious difference is that Arabic adjectives follow the noun and carry its features in definiteness, number and gender, while in English they precede the noun (Hobi, 2011). These differences may influence learners' errors in misordering and addition.

In prepositions, Arabic prepositions are much fewer in number than their English equivalents (Al-Ghalayini, 2010; Al-Marrani, 2009). This is why not every English preposition has an exact equivalent in Arabic and vice versa (Hasan & Abdullah, 2009). Moreover, there are instances where a preposition is required in Arabic where it would not be in the equivalent context in English and vice versa, e.g., *ethhab leltasaweq* 'go shopping' literally **go for-shopping* (Dera,1994). These differences are anticipated to make learners commit errors in misselection or deletion. Generally, all the above linguistic NP differences between Arabic and English are possible predictions for EFL learners' writing errors, and especially errors in misselection and deletion.

This chapter is an attempt to provide descriptions of errors attributed to L1 interference as precisely as possible. The knowledge gained from the differences between English and Arabic NPs and the analysis of learner errors based on this chapter will potentially advance our knowledge of how L1 interference works and thus constitute a step forward within the CA and EA research paradigms.

CHAPTER 4: RESEARCH METHODS

4.1. Introduction

This chapter describes the methods used to answer the research questions to explore L1 interference errors in the written English of female Saudi Arabian students. It first explains the rationale for employing the selected methods of data collection and analysis. Secondly, it gives details of sampling and instrumentation; introducing the research site; presenting the population, the sample, and sample selection; and stating the research instruments. Thirdly, it gives a summary of the pilot study that was conducted and its results. Fourthly, it describes the application of the error analysis and provides an overview of how the data were prepared for obtaining results. Fifthly, it reviews the administration of the error comprehensibility questionnaire and how the data were handled. The chapter concludes with a confirmation of the ethical procedures followed in compliance with the regulations of both the University of Roehampton (UoR) and PNU.

The main goal of this study is to analyse students' syntactic errors in EFL writing, specifically focusing on noun phrase (NP) structure. To achieve this goal, the study employed both quantitative and qualitative methods, which are briefly summarized as follows.

Data were collected from the Advanced Writing course (the highest level of writing in the English Department at PNU) in the form of essays taken from the students' final exam. Error Analysis (EA) was used as an analytical tool, based on the assumption that analysing EFL students' errors will lead to knowledge about L2 learners' progress (Crystal, 2001). The EA helped to detect, identify, and describe errors in context; and then to classify them into categories. The sources of the errors were established by using the contrastive analysis (CA) of the NP in English and

Arabic, supported by published research findings related to Arabic and English syntactic EA.

A descriptive statistical analysis was employed to show the frequencies and percentages of the syntactic errors within the NP, specifically for each major linguistic category (i.e., articles, nouns, pronouns, adjectives, prepositions, and quantifiers), subcategory (e.g., definite articles, indefinite articles, personal pronouns, relative pronouns, etc.), and surface structure taxonomy (SST) (addition, deletion, substitution, and word order) of interlanguage errors. The quantitative data provided percentages for the total number of words in the students' essays; a comparison between the total number of correct and incorrect NPs and their percentages; and a comparison between interlanguage and intralanguage errors in numbers and percentages.

A detailed explanation of frequencies and percentages for NP interlanguage errors (resulting from L1 interference) and their subcategories was made, in addition to which, the most frequent interlanguage errors (in numbers and percentages) were identified.

Finally, a questionnaire was administered, based on selected error samples from the most frequent syntactic NP categories, to check if those errors impede comprehensibility of the text. The quantitative method (i.e., comprehensibility ratings by ESL/EFL professionals) supports the qualitative method (i.e., open-ended responses by those same participants), and adds depth to the study findings.

4.2. Rationale for Issues Discussed and Methods Selected

This section provides descriptions of the components of the research and an explanation of the methods used. It contains a brief explanation of why each of the research topics is worthy of study, and a justification for the methods used. It explains

and describes the reasons behind the chosen topics and methods in this research; the rationale for focusing on the writing skill, the noun phrase (NP), and the skill level of the learners whose writing was studied; and the choice of error analysis, the NP syntactic tool, the questionnaire, and the use of multiple methods (quantitative and qualitative methods). The rationale for the choice of methods for this research is as follows.

4.2.1. *Choice of Subject Matter and Data*

4.2.1.1. Writing

The data collected were from students' written work. The research focused on writing skills because they are considered very important in language learning for a number of reasons. First, learners' success in writing can draw upon their command of other skills; e.g., listening, speaking, and reading (Phuket & Othman, 2015; Richards & Renandya, 2002), and it involves many aspects of language, including vocabulary, grammar, and expression (Watkins, 2004). Second, students need writing skills for academic purposes, e.g., taking notes, describing things, writing essays, answering written questions, and writing research papers (Sawalmeh, 2013). Third, it fulfils future professional needs, as learners need it to write business letters, emails, or reports in English, and it is required to answer most exams (Watkins, 2004). Fourth, writing as a skill is a creative activity that develops learners' motivation, confidence, desire for exploring the language, and aspiration for self-expression (Hedge, 2005). Fifth, the differences of the linguistic properties of writing between L1 and L2 are considered a challenge for L2 learners (Leki, 1990; Zhang, 1995) because, to master writing, learners need a lot of practice and patience (Ur, 2009). Finally, owing to all of the considerations just mentioned, acquiring all the necessary strategies for writing

is an essential part of any English programme, especially for students majoring in English (Alkubaidi, 2014; Baka, 2013).

4.2.1.2. The noun phrase

There were several reasons for choosing the noun phrase (NP) for analysis. The NP functions as the main component of any linguistic structure, acting as the subject, the object, or the complement in a sentence (Richards & Schmidt, 2010). The structure, and hence the meaning, of a sentence is almost always incomplete without at least one NP, and more commonly with both a subject and object NPs (Huddleston & Pullum, 2007, p. 83). As a result, the components of the NP may appear more frequently, in words, than the verb phrase (VP); hence, the NP is a common source of learners' errors (Mukattash, 1981; Obeidat, 1986). Arabic-speaking students make more interlingual errors in the NP components (determiners, pronouns, prepositions, etc.) than in other areas of English syntax (Al-Jarf, 2008; Khalil, 2000; Sawalmeh, 2013; Thyab, 2016).

4.2.1.3. The students

PNU students at the advanced writing level were chosen because it is the last level of language writing in the programme. The summative evaluation of the product at the end (Harlen & Crick, 2002) normally reflects the quality of learning and provides information that can be used to modify and develop the programme. PNU was chosen because it is the only women's university in the Kingdom of Saudi Arabia, and it devotes efforts to preparing female professionals (Alaugab, 2007) who specialize in English. PNU was chosen to collect data from because of my links to English instructors and employees at this university, which made it possible, for example, to obtain the University's consent to provide me with the main data (i.e., copies of the advanced writing exam data). In the light of my and other scholars'

experience of teaching EFL to students at this university and other Saudi universities, and personal communication with decision-makers at PNU, research and analysis of students' writing is needed to explore the reasons for specific errors (Alhaysony, 2012; Al-Sindy, 1994; Barzanji, 2016).

4.2.2. *Choice of Tools and Methods*

Both quantitative and qualitative methods were chosen to ensure that the limitations of one method would be balanced by the other in answering the research questions (Turpin & Finlayson, 2015). The qualitative method gives depth to the findings, i.e. the syntactic analysis of the learner errors produced by the Arabic students, by identifying, describing, and classifying errors, as well as explaining the possible sources of each error. The quantitative method complements the qualitative method, providing an overview of frequencies and percentages of errors in each linguistic category and subcategory. The integration of the two methods will increase the likelihood that the sum of the data collected will be richer, more meaningful, and ultimately more useful in answering the main research question: "What are the syntactic NP errors made by Saudi female students in EFL writing?" (R. Johnson, Onwuegbuzie, & Turner, 2007, p. 212).

As discussed in Chapter 2, Section 5, error analysis (EA) is one of the most important tools in language teaching research (Jabeen & Mustafai, 2015). EA provides useful information about learners' knowledge and progress in the target language (Crystal, 2001). It allows prediction of problems or difficulties that learners encounter during their L2 learning process (Khansir, 2012). In addition, it is a useful tool to help teachers modify their methodology for better EFL learning (Vasquez, 2008).

The NP syntactic tool was designed to help in gathering and analysing data. The tool was expected to be helpful in categorizing errors (James, 2013) and in determining the number and frequency of errors produced in the students' essays. The tool will also serve as an organized cross-reference (using various codes and annotations described below) for locating errors in their original contexts, making it faster and more efficient to search for errors in their original contexts.

The questionnaire was deemed to be an appropriate method to gather data to answer the research question regarding teachers' perceptions or opinions (namely, "*Which of the most frequently occurring types of interlanguage errors have the greatest effect on comprehensibility?*"). The questionnaire was administered in both paper format and electronically, allowing the respondents to participate anonymously, as well as offering ease of use at each participant's own pace. The collection of qualitative data from open-ended questions aimed to "capture the richness of people's experiences in their own terms" (Patton, 2002, p. 10), adding in-depth quality comments and suggestions to the research, e.g., on particular issues related to each linguistic category, or on what can be done to address difficulties encountered by learners during L2 acquisition. The participants' demographic data (e.g., experience in teaching EFL and/or ESL, levels of qualification, and native language) were also collected for further comparisons, e.g., for the analysis of correspondences between the respondents' background and variations in their ratings, as well as their comments on the target errors (from the open-ended questions).

In general, using a questionnaire to collect data has both advantages and limitations. In terms of advantages, a questionnaire usually serves to gather a large amount of information from a large number of people simultaneously, which makes it possible to cover wide geographical areas, in a fast and efficient way (Bell & Waters,

2014; Perry, 2017; O'Leary, 2014). Furthermore, a questionnaire is typically more economical than other tools, such as an interview, as completing a questionnaire is usually a time-effective approach to data collection (Akbayrak, 2000; Perry, 2017). A questionnaire also allows sufficient time for respondents to think about their answers (O'Leary, 2014). Another important advantage of using a questionnaire is that it permits the confidentiality and/or anonymity of the participants, which is an important aspect in research on controversial issues (O'Leary, 2014). An open expression of one's opinion may be more problematic during an interview, where the opinion must be given directly to the interviewer. Finally, an important benefit of using a questionnaire is that it allows the collection of both quantitative and qualitative data (R. Johnson & Christensen, 2014; Patton, 1987; Perry, 2017).

This being said, a questionnaire as a tool of data collection also has several limitations. For one thing, it may not be sufficiently flexible, so that there is no possibility to modify or rephrase a question should respondents require clarification (R. Johnson & Christensen, 2014; Perry, 2017). Yet, this lack of flexibility can be considered an advantage of the questionnaire approach, as with the standard, pre-defined format, there is no risk of bias (e.g., due to the mood of the interviewer in an interview). Furthermore, the process of finding patterns and themes in open-ended answers may involve a problem of subjectivity caused by the researcher's interpretation (Patton, 1987), which requires the researcher to remain neutral when analysing and coding the respondents' responses. Moreover, it could sometimes be challenging to obtain open-ended answers from potential participants (Akbayrak, 2000; Perry, 2017).

To facilitate subsequent analysis, the quantitative section of the questionnaire typically uses Likert scale (a psychometric scale used in surveys to quantify data)

(Perry, 2017). The rating is usually performed on a 5- to 7-point or 4- to 6-point symmetric agree-disagree scale for a series of statements, and the aim is to capture the degree to which the participants (dis)agree with the views on a certain topic expressed in the statements (Oppenheim, 2000). Most researchers use a 5- to 7-point scale (with a neutral point) to avoid bias (Hartley, 2013). Although a 4-point Likert scale has been criticized of lacking the middle alternative option (e.g. *neutral, about the same, no difference*), some researchers prefer to omit it to get only specific responses (Hartley, 2013; Patton, 1987), Admittedly, this forces the participants to think more and lean one way or the other (R. Johnson & Christensen, 2014). According to R. Johnson and Christensen (2014), omitting the middle alternative does not allow so-called "fence-sitting" (p. 174), and the results then yield less ambiguous data. The qualitative section usually leaves a blank space for comments on an open-ended question.

The present study benefited from the advantages of using a questionnaire as a tool of data collection. To address potential limitations of this approach, clear instructions were given, with examples where appropriate. Furthermore, in order to ensure the quality of the data, the questionnaire was piloted a couple of times and revised based on experts' advice (see Section 1.4.2 for further details).

In addition, in order to enhance objectivity and robustness of the analysis of the open-ended responses, an English NS EFL expert independently checked 20% of the open-ended responses (randomly selected from the collected dataset using random.org; see Section 4.6.4). Moreover, in order to achieve a high response rate, ensure minimum bias, and obtain truthful responses from the respondents, the questionnaire was personally administered (in person or online; Akbayrak, 2000; Bell & Waters, 2014). Furthermore, following O'Leary's (2014) suggestion about

increasing response rate and the speed of responding, the participants were followed up with reminder emails when necessary. As to the format of the scale, a 4-point Likert scale was found to be optimal for answering the research question, as experienced participants' opinions were essential. In order to eliminate midpoints and force a positive or negative option, the 4-point scale started the ratings on the left side ('Very Comprehensible') and ended on the right side ('Incomprehensible'). The decision to have a 4-point Likert scale, instead of a 2-point one (i.e., 1 = comprehensible, 2 = incomprehensible) was deemed to be useful to calculate the average score. To put it another way, it was useful to find questions where one participant chose to rate '1' considerably more frequently than rating '2', or where another participant gave the rating of '4' more frequently than '3', as these differences would influence the average score.

4.3. Sampling and Instrumentation

4.3.1. *Research Site*

The research site for the study is the English Language Department at PNU in Riyadh, Saudi Arabia. PNU is located in the capital city Riyadh, which is a point of attraction and a spot of migration of citizens from other provinces in the kingdom due to opportunities for job transfer, work and study (Abubakar & Aina, 2016). PNU is seen as representative of females in the Kingdom of Saudi Arabia for three reasons: a) Riyadh is the biggest city in the kingdom and an attraction for work and study, with a population of 7,231,447 people (World Population Review, 2020); b) students transfer to it from all parts of the kingdom; and c) PNU is the largest female-only university in the world (Alameel, 2019; Pavan, 2013).

Saudi Arabia uses English as a medium of instruction in English departments at the university level, except when teaching courses on Arabic language and religion. The English Department at PNU offers three programmes: literature, translation, and linguistics. In their first two years, students follow courses in the four general language skills; namely, listening, speaking, reading, and writing. Writing is taught after students have acquired success in all other skills in the other language modes, including the sub-skill of grammar. Students' proficiency levels are determined by their success in fulfilling the course objectives: composing various types of essays (e.g. narrative, argumentative, exploratory etc.); applying appropriate rhetorical patterns in writing (e.g. argument and persuasion, cause and effect etc.); and developing strong English language writing skills, e.g., grammar (PNU, 2017, p. 3). Class sizes range between 20 and 30 students per section, and the pass grade is 60%.

4.3.2. *Population and Sample*

The population, according to figures provided by PNU for the Advanced Writing course in the year 2017, was as follows:

- Total number of registered students in the College of Languages at PNU: 2,499
- Total number of students who attended the Advanced Writing final exam: 356
- Out of the 356, 178 (half of the population) were selected according to the procedure described in the following subsection.

4.3.3. *Sample Selection*

The sampling protocol applied by the English department at PNU was Systematic Random Sampling. This protocol is random in that: a) each element in the target population is assigned a random number, and b) the starting point is chosen

randomly. It is systematic in that every n^{th} number is selected to complete the required sample size (Perry, 2017; Riazi, 2015). Using this sampling method was helpful for this research because:

1. It was intuitive, fast, and could be done manually,
2. The population was homogeneous with respect to skill level,
3. It maintained a low risk of data manipulation by me, as another individual from PNU performed the selection, and
4. The selection of essays using a systematic procedure improved the potential for ideal dispersion of sample units throughout the population (Perry, 2017).

The data for this EA study consisted of 178 essays from the Advanced Writing final exam in the English department at PNU in the year 2017. The students who provided the learner data (essays) of the final exam were all female native Arabic speakers aged between 20 and 22.

4.3.4. *The Instruments*

Two instruments were used to collect the data. Both were developed specifically for this study.

An *error classification tool* (an Excel spreadsheet, see Appendix H) was used to classify and categorize the students' errors. It is based on detailed descriptions of the English NP by Greenbaum and Quirk (1990), Leech and Svartvik (2013), Alexander (2003), and Breben and Davidse (2016). It provides the baseline for the target language (TL); the description of all possible morphosyntactic components of the Arabic NP and their interaction facilitates the identification of potential L1 influences in the learner's version of TL (English) NPs; this, in turn, enabled the researcher to classify and identify interlanguage errors and their sources.

A *questionnaire* (see Appendix L) was used to explore the comprehensibility of different types of errors identified through the former tool. The questionnaire used a four-point Likert scale (1 = Very comprehensible, 2 = Comprehensible, 3 = Incomprehensible, and 4 = Very incomprehensible) in the closed question section. An open-ended question (comment space) for each target error was added to allow the participants to comment on their responses on the comprehensibility ratings, or provide insights or suggestions into particular issues related to each linguistic category. The questionnaire was electronic, but there was a hard-copy backup. The electronic version included links to samples from the essays, showing errors in their original contexts; in the hard-copy version, extracts from the essays were attached to the questionnaire.

4.4. The Pilot Study

Before the administration of the full study, the two research tools (the error classification tool and the questionnaire) were piloted on a small group of learners' essays (28 Advanced Writing essays, containing a total of 10,137 words), and teachers similar to the target group (eight teachers total; including four native and four non-native speakers). Both tools were analysed and revised several times, based on the pilot findings and expert advice. The following are summaries of the final round of piloting and the results.

4.4.1. *Piloting of the Error Classification Tool*

The error classification tool went through several modifications to ensure quality and reliability. It was mainly based on Greenbaum and Quirk's (1990) NP classification, and was applied in accordance with James' (2013) error analysis steps. The NP linguistic categories were determined as: Articles, Nouns, Pronouns,

Adjectives, Prepositions, and Quantifiers. An Excel spreadsheet was prepared showing those linguistic categories. All the NP errors were located in the students' essays in their original contexts, and were classified under the categories mentioned, with each error described in context in relation to the error SST (addition, deletion, misselection, or misordering). Each error was then classified as interlanguage or intralanguage to allow the subsequent steps of the research to concentrate on interlanguage (L1 interference) errors. All errors that were classified as interlanguage errors were put into a separate Excel spreadsheet that was again organised according to the linguistic category in which the error occurred, in addition to the information found on the SST. The piloted error classification tool revealed that the percentage of interlanguage errors (68.77%) was almost double that of intralanguage errors (31.23%), which clearly indicates the importance of L1 interference. The most frequent errors were articles and nouns, which were responsible for over half of the errors, followed by pronouns.

4.4.2. *Piloting the Questionnaire*

The first version of the questionnaire was six pages in length and consisted of four parts:

1. An informed consent document
2. A brief section asking participants for general information about themselves (their gender; whether or not they were educated in an English-speaking country; their educational qualification level; the number of years that they had taught EFL/ESL; and their mother tongue)
3. Brief instructions for completing the questionnaire. This consisted of an explanation of the four comprehensibility rating levels (1 to 4, with 1 being most comprehensible); a reference to a longer explanation of the

rating levels that was included at the end of the questionnaire; and an invitation to add comments regarding reasons for the incomprehensibility of the errors, and/or how teachers might address such errors.

4. The response tables, consisting of errors grouped by linguistic category; a place to mark the comprehensibility rating next to each error; and several lines for comments below each group of errors.

This initial version was piloted and revised through several stages. Each time, it was piloted on 2-8 participants, including native speakers of both English and Arabic. These pilots were conducted using two versions of the questionnaire: in hard copy and online via SurveyMonkey. The questionnaire was revised and modified several times according to feedback from pilot participants, as well as native and non-native EFL teachers' expert advice. Following is a brief summary of examples of these revisions; the final version of the pilot questionnaire can be found in Appendix J.

First, a reference number was added next to each example (for example, reference number 5-1-3, in which means that the example is on page number 5, located in the first paragraph and line number 3). Second, efforts were made to keep the questionnaire at a reasonable length to help maintain respondents' interest. Third, the "Comments" column was placed to the right of the examples (instead of under each group of examples of the same linguistic category) to attract the participants' attention:

Table 4.1. A Sample of the Questionnaire

Error number	Contexts	RN (page-paragraph-line)	1	2	3	4	Comments
1	"In conclusion, all problems in (the) life has (a) solutions.	3-2-7					

Fourth, the table defining the rating levels (1-4) was placed at the beginning of the questionnaire to attract participants' attention before responding.

Fifth, the style of referring errors to their original written contexts was changed (which were reproduced at the end of the questionnaire), from "error/page/number" to "page/paragraph/line" to make it clearer and faster to locate errors. Finally, errors were selected only from the most frequent interlanguage categories, as they are the focus of the research. This was done by choosing randomly from each linguistic category, and including at least one error coded (X) (i.e., as incomprehensible) because it is the scope of the questionnaire. The goal was to ensure that the items included in the questionnaire would be maximally relevant to the research question under study.

The questionnaire included a four-level rating scale to assess whether the most frequent errors led to text incomprehensibility, with higher numbers indicating greater incomprehensibility. The two most frequent linguistic categories (articles and nouns) were used in the pilot questionnaire, and the summarized results yielded the following: a) errors involving articles were overall rated as less comprehensible than errors in nouns, b) native speakers of English on average rated errors as more incomprehensible than did native Arabic speakers across both linguistic categories, but showed the same pattern of rating articles as less comprehensible than nouns, and in addition to the ratings, c) the participants' feedback on the open-ended questions (comments) suggested that being able to check the original context was desirable, so this option was provided as described above.

4.5. The Application of Error Analysis to the Main Study

4.5.1. *Data Collection Procedure*

For the collection of data, the two instruments were used in two phases, and the data were subjected to testing (during the previously mentioned pilot study) to provide answers for the research questions.

Data collection was undertaken from the students' final exam essays at the highest level of writing (the 'Advanced Writing' course) in the College of Languages during the year 2017 (after obtaining all necessary approvals and consent from UoR and PNU). According to the college regulations, the students in this course were expected to produce a well-organized, two-page argumentative essay of approximately 300 words within 2 hours. The students were asked to respond to one of the following prompts:

1. *What is your favourite place to shop for clothes and accessories? Is it a mall, a city, a souq, or a particular store? Provide your reader with at least 3 reasons, with examples, why it is your favorite place to shop.*
2. *Explain what makes Princess Nora bint Abdulrahman University (PNU) an interesting and effective university to study at. Assume your readers are not familiar with PNU.*
3. *Do you agree that teenagers should not combine their studies and part-time jobs? Explain why you (dis)agree.*
4. *The most important element in friendship is trust. Do you agree with this statement? Explain why and provide examples from your own experience.*
5. *Why are many people not satisfied with what they have? Give reasons and support them with clear examples.*

The sample of essays to be studied was chosen by the English Department using systematic random sampling. This method, like simple random sampling, allows each element in the population to have an equal probability of being included in the sample, based on the following points (Riazi, 2015). The population (356 essays) was placed in a random order, and the sampling interval was calculated by dividing 356 (population) by 178 (sample needed), for a result of 2: a starting point was randomly chosen, then number 2 was selected, and the sample selection continued by repeatedly adding the sampling interval to select subsequent essays, i.e., 4, 6, 8, 10, 12, 14, 16, 18, 20 etc., until the necessary number of essays was selected (Paltridge & Phakiti, 2015; Perry, 2017; Riazi, 2015; Walliman, 2011). The chosen sample was 178 students (see Appendix G), providing a corpus of approximately 53,400 words.

To prepare the sample for analysis, and in accordance with standards for research ethics, students' identities were made anonymous to preserve confidentiality. All identity markers (names and ID numbers) were removed, and hard copies were made through the Coordinator of the Writing Program. The essays were re-assigned numbers for the sake of organization (i.e., from 1-178), and all copies were reviewed, scanned and kept in an electronic file.

After collecting the data, four types of data analysis were conducted. First, a syntactic error analysis of students' essays identified and located errors in their contexts, focusing on NP constructions. Second, the sources of errors were explained using the results of the comparative analysis between English and Arabic (discussed in Chapter 3), in addition to supporting research. For this task, other related studies and results were also used, such as Al-Najjar (2014), Beina (2013), Jawad (2015), Salim (2013), Thyab (2016), and Zughoul (2002). The explanations for the sources of

errors were used to identify L1 interference (interlanguage) errors. The identified errors were used to distinguish between interlanguage and intralanguage errors. Third, the identified interlanguage errors were arranged under the NP linguistic categories as belonging to: Article, Pronoun, Noun, Preposition, Adjective, and Quantifier (James, 2013, p. 13/53).

Finally, a descriptive statistical analysis using Excel and the Statistical Package for Social Sciences (SPSS) quantified students' errors into numbers, frequencies, and percentages for each error in their subcategories. In addition, the total percentages of interlanguage and intralanguage errors were compared.

4.5.2. *Data Processing*

The data gathered underwent seven stages of processing and analysis to ensure quality and prepare it for final analysis.

4.5.2.1. Data preparation

Before detecting errors, the NP syntactic tool was prepared in an Excel spreadsheet to help gather the errors in their contexts and categorize them. The spreadsheet included information on the syntactic NP errors, the surface structure taxonomy, the position codes, error descriptions, and error types.

A *number* of useful annotations were added to the spreadsheet. First among these were the NP linguistic categories (Article, Pronoun, Noun, Preposition, Adjective, and Quantifier) of the error location. This was generally coded based on the category that would have been correct. For example, if a preposition was used incorrectly where a pronoun would have been necessary instead, the major linguistic category of the error was coded as 'Pronoun.' There was one exception to this. In the case of errors in which an unnecessary word was inserted, meaning that the correct target category would have been "nothing;" the error was coded with the category of

the inserted word instead. Second, a surface structure taxonomy (SST) was defined to highlight "the systematic way in which the learner alters surface structures" and produces interlanguage errors (Laufer-Dvorkin, 1991, p. 193). In this study, the SST categories adopted were addition, deletion, misselection and misordering.

Third, the errors were coded for error position by assigning numerical codes to indicate the location of each error within the NP structure (see Chapter 3). This was based on a structural analysis dividing the NP into six positions. These are detailed below, together with the codes assigned to each, the types of linguistic elements found in each position, and some examples of these elements.

- 1A: pre-determiner: certain quantifiers (*all*, *both*), multipliers (*double*), and fractions (*one-third*)
- 1B: central determiner: articles (*a*, *an*, *the*), deictic pronouns (*that*, *those*), personal pronouns of possession (*my*, *his*), indefinite pronouns (*any*, *some*), interrogatives (*which, what*), and negative expressions (*no*)
- 1C: post-determiner: cardinal numbers (*one*, *five*), ordinal numbers (*first*, *fifth*), and certain quantifiers (*few*, *several*)
- 2: pre-modifier: nouns (as the non-head member of a noun-noun compound, e.g. *science* in *science project*), adjective phrases (*very big*), and participles (*winning*, *tired*)
- 3: head: common nouns (*children*, *information*), proper names, personal pronouns (*I*, *she*, *they*), and simple adjectives (*favourite*, *expensive*, *harmful*)
- 4: post-modifier: prepositional phrases (*in the afternoon*), relative clauses (*who was reading that book*), non-finite clauses (e.g. *writing a letter* in *the woman writing a letter*), and clauses of complementation (*than I*)

In cases where one noun phrase was embedded in another, the position of the error in the matrix NP was given first, and its position in the embedded NP which followed in brackets. For example, the error *[solutions to help them in [their life( )]]* is coded as 4 (3), since the error site is in the post-modifier prepositional phrase (4) of the matrix NP, and in the head noun position (3) of the embedded NP.

Fourth, each error was annotated with an explanation of the possible interlanguage effect on the error, e.g., (72-22) *[my cousin was working when he was ( ) teenager].* The possible source for the error in the above example is that Arabic learners might omit the indefinite article because it does not exist in Arabic (Abu-Chacra, 2018; Ryding, 2005). Fifth, each error was given a brief description, noting the salient elements (words) that surround it. The relevant column in the Excel file was headed "Elements involved in error."

Finally, each error was coded with an error type. The errors were grouped into clusters in accordance with recurring shared properties or 'themes.' In general, these grouped errors together on the basis of 'why they were incorrect'. For example, errors that are ungrammatical in English due to disagreement between a pronoun and its antecedent were classified as belonging to the error type *AgrPro* (see Appendix I).

4.5.2.2. Detecting and identifying errors

The error analysis of the main study began here by going through the essays, underlining all NP constituents in the data, identifying errors, and distinguishing between correct and incorrect NPs. The errors were counted manually, initially for each essay, then for the whole sample.

4.5.2.3. Locating errors within their contexts

The marked errors were entered in order into the Excel spreadsheet, together with their surrounding elements within the sentence or clause contexts. The errors

were marked up with the following annotations, as described in the data preparation subsection above, to aid in classifying errors according to their nature and location:

- A reference number indicating the error's sequential position in each numbered essay (e.g. 5-12 for the twelfth error in the fifth essay).
- An identification of the major linguistic category (e.g. Noun) and subcategory (e.g. N-C for common noun) of the error site.
- The SST, e.g., "Deletion of plural marking" or "Addition of definite article."
- A numerical code indicating the error's syntactic position based on the English 'NP Structure' in Chapter 3.
- A text description of the elements involved in the error and the reason for it being incorrect ("Elements Involved in Error").
- A numerical code indicating whether the error was interlanguage (1) or intralanguage (2).
- Comments on the possible specific source in Arabic grammar of the L1 interference giving rise to interlanguage errors.
- A label by "Error Type," thematically grouping errors that were incorrect for similar reasons to one another.

4.5.2.4. Counting correct and incorrect NPs

To ensure quality for this stage, a professional native speaker (NS) of English was asked to independently identify the correct and incorrect NPs. The NS has a doctoral degree in linguistics, has experience with ESL/EFL learners, and does not speak or write Arabic. Before conducting the analyses, the NS and I came to agreement on two broad methodological criteria for error identification.

First, we decided that the correctness or incorrectness of NPs would be determined based on English prescriptive grammar in addition to the native speaker's

intuitions about whether or not the NPs would be grammatical and natural in standard written English.

Second, for errors occurring in embedded NPs, we agreed that only the lowest NP containing the error would be counted as wrong. For example: *There is [another solution which is giving [more time to study in [the weekdays]].* The whole structure between the outermost square brackets is a predicative complement (complex NP). It contains a wh-clause "*which is giving…,"* in which there is an object NP "more time to study in the weekdays," contained within the second set of square brackets. This NP in turn contains a prepositional phrase "*in the weekdays*," in which there is a third NP, "*the weekdays*," contained in the third, deepest set of square brackets. Because this is referring to "*weekdays*" generically, the use of "*the*" in the deepest-embedded NP could be considered an error. Although this error occurs within all three of the nested NPs, only the deepest-embedded one, "*the weekdays*," would be counted as an incorrect NP. This serves to avoid multiple counting of errors when tabulating the numbers of correct vs. incorrect NPs.

The English NS went through all the collected essays and classified the correct and incorrect noun phrases (NPs). I then went over the work of the NS on the NPs to compare and identify the differences between my analysis and the NS's. A summary of the differences appears below:

Table 4.2. The Differences Between the Two Analyses of Correct and Incorrect NPs

NPs	Myself		NS		Similarities	Differences
	n	%	*n*	%	*n*	%
Correct NPs	13175	78.8 %	12781	77.0 %	97.1%	-2.99%
Incorrect NPs	3545	21.2 %	3814	23.0 %	92.41%	7.59%
Total NPs	16,720	100%	16,595	100%	99.25%	-0.75%

In this analysis, a total of 16,720 NPs (13,175 correct and 3,545 incorrect NPs) were identified, while the Native Speaker judged there to be 16,596 NPs (12,781 correct and 3,814 incorrect) with a total NP difference of 0.75%. The native speaker judged there to be 2.99% fewer correct NPs, and 7.59% more incorrect NPs. Overall, the NS was definitely stricter in deeming things to be in error.

To consider the possibility of agreement by chance, the intra-class correlation coefficient (ICC) was used to measure the inter-rater reliability between the NS and me. The reason for using the ICC as opposed to Cohen's kappa is because Cohen's kappa works only for categorical variables, while the ICC accepts discrete variables. Three inter-rater reliability scores were calculated, using the interpretation of Altman (1991). The first was the inter-rater reliability between the NS and me for the independently chosen NPs is = .94 ($p < .001$, 95% CI [0.92, 0.96]), which is considered to be very good agreement. Second, the inter-rater reliability between the NS and me for the independently chosen Correct NPs is = .90 ($p < .001$, 95% CI [0.86, 0.92]), which is considered as borderline very good agreement. Third, the inter-rater reliability between the NS and me for the independently chosen Incorrect NPs is = .79 ($p <.001$, 95% CI [0.73, 0.84]), which is considered as borderline good agreement (see Appendix O for detailed tables).

The differences between the two analyses were discussed by the English NS and me until an agreement was reached. Below are illustrative examples from the discussion, which show some of the recurring types of differences:

First, there were divergences of opinion in cases involving the demarcation of NPs embedded within larger NPs.

Example 4.1. Divergences of Opinion Between English NS and Self (1)

Essay 102, p. 1:

My analysis: There is [no one] do not like [(the) smart phones].

NS's analysis: There is [no one ( ) do not like [(the) smart phones]].

I identified "no one" as an NP by itself, and judged it correct; the NS analysed this sentence as containing an NP with an embedded relative clause (which should have been "no one who does not like smart phones"), which in turn contained an embedded object NP (which should have been "smart phones"). The NS judged there to be errors both in the embedded NP (due to the unnecessary use of the definite article) and the matrix NP (due to the missing relative pronoun "who").

Example 4.2. Divergences of Opinion Between English NS and Self (2)

Essay 128, p. 1:

My analysis: [Smart phones] really is [the big problem].

NS's analysis: [Smart phones] really is [(the) big problem].

There are a few examples in which the NS diagnosed an error in a structure that may have been correct on strictly internal grounds, but which did not really seem right in context. In this case, the use of the definite article in the second NP presupposes the existence of a single, unique "big problem," which the earlier discourse context in the essay does not establish.

Second, there were cases in my analysis where words which did not belong there were accidentally included within NPs.

Example 4.3. Accidental Word Inclusion in NP Identification

Essay 141, p. 1:

"*In every time*" was underlined as an NP in my analysis (The preposition "*in*" is not part of the NP (which consists only of "*every time*")).

P. 3: "*adjusting it*" underlined as an NP in my analysis (The verb "*adjusting*" is not part of an NP here; rather the NP "*it*" serves as the object of the verb).

Third, there were cases where I have inappropriately subdivided NPs.

Example 4.4. Error in NP Subdivision

"*The students*" and "*who do not cooperate*" were underlined as separate NPs in my analysis (This should be analysed as a single NP containing an embedded wh-clause).

Fourth, the NS identified cases where NPs had been missed outright in my analysis, and a few where I identified NPs missed in the NS's analysis:

Example 4.5. Error in NP Identification

Essay 2, p. 1:

P. 1: In paragraph 2, a couple of instances of the pronoun "*she*" were not underlined in my analysis.

Fifth, there were cases where the NS agreed with my analysis with respect to the identification of NPs and their boundaries, but judged such NPs to be incorrect, whereas they had been marked correct by me.

Example 4.6. Error in NP Correctness

Essay 88, p. 1:

"*60 second*" was marked correct, despite absence of plural marking

"*All the problems is hard but we can solve it*": "*it*" was marked correct despite the mismatch in number with antecedent "*all the problems*"

"*...the difference between they…*": "*they*" was marked correct, even though "them" would have been correct

Finally, there were some cases of subjective differences between my analysis and that of the NS:

Example 4.7. Subjective Differences

Essay 15, p. 1:

> *"It is waste their time for just sit with their cellphones":* The word "*waste*" was underlined as an incorrect NP in my analysis, but in context, it was judged by the NS to be more likely a verb. This is a subjective judgement, since the target could be either: "*It wastes their time*", where the word is a verb, or "*It is a waste of their time*", where it is a noun.

All the examples above are of differences between my analysis and the subsequent analysis by the NS. The differences were quite minimal and, after mutual agreement, a final version was reached. The final version incorporated the NS's intuition, especially with regards to the cases of subjective differences.

After finishing the above process, a new column was added to the Error spreadsheet for the English NS and me to check if any of the identified errors might possibly lead to incomprehensibility of the text, and to mark such errors in that column with an "(X)." The errors coded (X) were intended to be used in the comprehensibility questionnaire tool.

4.5.2.5. Describing errors

In this step, each error was described in its context. Dulay et al. (1982) state that describing errors is "a separate activity from the task of inferring the sources of those errors" (p. 145). Two more annotations for error description were added to the spreadsheet: a) classification of errors as interlanguage or intralanguage, and b) comments on the expected Arabic-language source of the error.

4.5.2.6. Revising the classifications of errors

The classification of errors as either interlanguage or intralanguage was checked by asking an Arabic-speaking EFL professional to classify independently

10% of the errors (randomly selected from the total using random.org). This expert and I extensively discussed the criteria used in making this classification. For example, we discussed how to classify cases where the learners combine a singular demonstrative with a plural noun (e.g., "*When we do this solutions we can stay with family and we can solving all this problem( )*"). For such examples, we both agreed that this would be classified as an interlanguage error because, in Arabic, when the demonstrative pronoun refers to a plural form of an inanimate (non-human) noun, it is put in its singular feminine form (equal to "this" in English) (Ryding, 2005).

Copies of the CA in Chapter 3 and potentially useful Arabic grammar book sources were also shared with the Arabic EFL professional.

The 10% random sample sent to the bilingual expert contained at least one of each of the linguistic categories of the NP (e.g., at least one definite article, one personal pronoun etc.), but did not necessarily contain examples of each type of the SST categories for each linguistic category. That is, there was not necessarily a deletion, addition, and misselection of definite articles, and one for personal pronouns, and so on. Compiling a random sample with all possible combinations of each linguistic category, subcategory and SST type would have been difficult to achieve.

The following table summarizes the number and percentage of differences between the bilingual expert and me with respect to each major linguistic category:

Table 4.3. Similarities and Differences Between the Bilingual Expert and Me

Linguistic Category	10% Random Sample		Similarities		Differences	
	n	%	*n*	%	*n*	%
Article	166	40%	160	42.33%	6	16.21%
Pronoun	83	20%	78	20.63%	5	13.51%
Noun	126	30.36%	101	26.72%	25	67.57%
Preposition	23	5.54%	23	6.08%	0	0%
Adjective	11	2.65%	11	2.38%	0	0%
Quantifier	6	1.45%	5	1.32%	1	2.70%
Totals	415	100%	378	91.09	37	8.91

As presented in the table above, the results show a high similarity of the number of errors classified as interlanguage or intralanguage between myself and the Bilingual Expert: a total of 378/415 errors (91.09 %). This can be attributed to the preparation undergone before engaging in this task (e.g., having a general discussion on the various types of errors and possible interpretations). The difference was 37 out of 415 errors (8.91%). This difference is mainly due to the two different assessors having different views on interpretations of the errors.

To consider the possibility of agreement by chance, Cohen's kappa coefficient was applied to measure the inter-rater agreement between the bilingual expert and me. It accounts for some degree of uncertainty in a coder's selection (Cohen, 1960), where both raters may judge an error as either 1 (interlanguage) or 2 (intralanguage). The interrater reliability for the raters was found to be kappa = .807 ($p < .001$, 95% CI [0.748, 0.866]; for the detailed tables, see Appendix P). Having a kappa value of .807 is considered a borderline "very good" agreement using the interpretation of Altman (1991).

The following are some examples of the differences between the bilingual expert and me.

Example 4.8. Differences Between Bilingual Expert and Me (1)

(The) study is important for (the) girls but many Princess Noura University students say that they have a hard time balancing family life and university obligation( ).”

(Omission of plural –s: Each individual in the reference set of “girls”" has their own obligations, so “obligation” should be plural).

In the above example, the bilingual expert classified it as an interlanguage error clarifying that it follows the Arabic N-Adj agreement rule (i.e. in “gender, number, definiteness, and case” (Ryding, 2005, p. 57)), while I disagreed with the Arabic language expert, explaining that this type of error is a good example of an intralanguage error, specifically a “simplification” (James, 1998, p. 178), i.e., the L2 learner could have had limited knowledge of the plural *–s* and tended to leave the morphological item out because she is not fully aware of its use or restrictions (Al Mahmoud, 2014).

Example 4.9. Differences Between Bilingual Expert and Me (2)

“Sometimes smart phones effect people's health and live( ).”

“However the smart phone has been the most import thing in our live( ) and each one any where and ( ) any age must have ( ) phone that will be lik eat and drink in ( ) last 5 years.”

(Deletion of plural –s: Each individual among “people” and “our” has their own life, so would make more sense as plural)

The bilingual expert classified such examples as interlanguage errors, pointing out that the L2 learner might have omitted the plural because the noun ‘“life”’ is uncountable in Arabic, while I classified the above error as an intralanguage one,

explaining that the student may be thinking that changing the “f” into “v” means it has been marked as plural. This is also a good example of an ‘overgeneralization’, specifically an “incomplete rule application” (James, 1998, p. 178).

Example 4.10. Differences Between Bilingual Expert and Me (3)

“This solution can really help the teenager to understand (the) real life.”

(Addition of definite article *the*: the L2 learner is discussing teenagers in general, not any particular teenager, as the use of the definite article would presuppose).

The bilingual expert classified it as an intralanguage error, explaining that it is an overgeneralization and that it does not follow the N-Adj agreement rule in Arabic. I, on the other hand, classified it as an interlanguage one, pointing out that focusing on this specific slot, a definite article is also present in Arabic. This could be a potential interference error and there could be a reason related to Arabic for this insertion, especially considering that there are reoccurring errors of this kind (i.e., with N-Adj combinations), particularly when the student is trying to express something in a generic sense. Unlike English, in Arabic, words and terms of abstract (e.g. *life*) and generic meanings usually take the definite article (Abu-Chacra, 2018).

4.5.2.7. Classifying errors into subcategories

The following annotations for categorizing errors were added into the spreadsheet: the linguistic category (e.g., Pronoun) and subcategory of the word affected by the error (e.g., Pronoun-Personal); the frequency count of each linguistic category and subcategory; a surface structure taxonomy (SST), i.e., a description of the type of error (Addition, Deletion, Misselection or Misordering); the frequency of each type of SST; and a description of the other elements involved in each error (for

example: In **all teenager( )*, the preceding quantifier 'all' requires a plural noun, so while the unpluralized noun "teenager" is the location of the error, "all" is still involved in the error).

Next, the interlanguage spreadsheet was sorted by linguistic categories and by their subcategories (i.e., Article: ART-DEF, ART-INDF; Pronouns: PRO-PERS, PRO-POSS, PRO-REL, PRO-DEM; Nouns: N-C, N-POSS; Preposition: PREP; Adjective: ADJ-ATT, ADJ-PRED; and Quantifier: H).

A further revision of the interlanguage spreadsheet organized the errors in accordance with 'what they have in common' to allow searching for shared linguistic patterns (e.g., linguistic category, subcategory, SSTs, error position, other elements involved in error, etc.). Error pattern codes were developed accordingly, e.g., SG-CNT-DET for those errors involving failure to use an overt determiner with singular countable nouns. See Appendix I for more details.

4.6. The Application of the Questionnaire in the Main Study

4.6.1. *Data Collection Procedure*

Before being administered, the questionnaire was revised further several times. The final version of the questionnaire was modified to make it clear, to the point, and free of repetitions. The final version of the questionnaire can be found in Appendix L; the changes that it incorporates include the following.

First, the statement of informed consent form was separated from the questionnaire itself. Secondly, some repetitive information was removed. For example, the "Description of Procedures" in the consent form was simplified; some parts of the "instructions" section were removed, in favour of concentrating on the

examples that were used; and detailed explanations of why these example errors were incorrect were removed.

Thirdly, some information was moved from the questionnaire to the consent form. Fourth, some pieces of potentially useful information were added to the questionnaire. For example, in the attachment to the questionnaire, where errors are shown in their original essay context, blue brackets were introduced to enclose the sentences containing errors. Another example is the addition of further context to error #4.

Fifthly, the style used for referencing the chosen errors in their original contexts was simplified from "page/paragraph/line" to "error number/page number."

Finally, a variety of other minor changes were made. These included removing the word 'optional' when asking the participants to fill in the comments box and, instead, stating something motivational, such as "your valuable comments will be appreciated"; including a very general description of procedures in the consent document, but adding details at the beginning of the questionnaire; and simplifying the description of "Benefits" in the consent form.

4.6.2. *The Questionnaire Sample*

This process started with a revision of the previously marked (X) Noun Phrases. Recall that this coding indicated errors that were expected to impede the comprehensibility of the text. In order to avoid the subjectivity of my assessment of the learners' errors and to ensure reliability, native speakers would be asked to assess the degree of (in)comprehensibility of L2 writing (Eddine, 2012, p. 264). The coding (X) for incomprehensible errors was not straightforward: there is no clear-cut line between what is comprehensible and what is not. In order to make the classification as robust as possible, any error that seemed incomprehensible or vague to me, was

assessed by four other native and non-native EFL teachers (2 NSs and 2 NNSs) to look them over, and to indicate which ones were incomprehensible and mark them (X). There were no notable differences between them on the errors previously marked (X), but it is arguable that an error can be rated as comprehensible by a NNS (due to their shared knowledge of the learners' L1), but rated as incomprehensible by a NS, as NSs tended to be stricter judges, not influenced by L1 knowledge (Eddine, 2012). After that, so as to choose the sample, the interlanguage data were randomized in sets of errors of the four most frequent linguistic categories. I used the integer set function on Random.org (https://www.random.org/integer-sets/) for selecting examples for the comprehensibility rating survey.

The program selected sets of four random integers falling in the numerical range of Excel row numbers in the interlanguage spreadsheet for each major linguistic category:

- Articles: rows 2-994
- Pronouns: rows 995-1606
- Nouns: rows 1607-2153
- Prepositions: rows 2154-2349

For each of the 'most frequent' categories, the program chose 100 sets of four random integers in the relevant range. The first set containing an error marked as (X) was chosen to be included in the questionnaire.

4.6.3. *The Questionnaire Participants*

The participants who completed the questionnaire were 30 EFL language teachers (15 NSs and 15 NNS). The respondents' data were anonymised. The data collected included the teachers' ratings of sentences containing errors, and their open-ended feedback on the comprehensibility of the sentences.

4.6.4. *Analysis of the Questionnaire*

The questionnaire responses were analysed in three steps. First, participants' ratings were tabulated, and the averages of their comprehensibility ratings (by linguistic category) were calculated. To evaluate the internal consistency of the comprehensibility ratings in the questionnaire, Cronbach's alpha was used. A high value for Cronbach's alpha of 0.87 was found across the 16 questionnaire items, suggesting that the questionnaire was reliable for assessing the comprehensibility of sentences containing errors (see Appendix M for further detail).

Second, the responses were organized in accordance with the participants' demographic backgrounds (i.e., L1, years of experience in teaching ESL/EFL students, qualification level, and gender) in order to compare the ratings in each linguistic subcategory and to identify any differences. Statistical tests were also applied, where necessary, to find differences between the ratings of NSs and NNSs.

Third, participants' qualitative feedback on the sentences containing errors was sorted and analysed. In a sample of 141 comments, six major themes were identified (see Section 5.3.2).

To ensure the quality of this part of the analysis, an English-speaking EFL expert independently classified 20% of the comments (i.e., 28 comments randomly selected from the total, using random.org). Before engaging in the task, the rater and I shared a copy of the questionnaire and discussed the initial themes and their definitions. Table 4.3 summarizes the findings.

Table 4.4. Agreement on Comment Classification Between the English EFL expert and me

Themes	20% Random Sample		Similarities		Differences	
	n	%	*n*	%	*n*	%
Theme 1	4	14.28%	4	100%	0	00%
Theme 2	6	21.42%	6	100%	0	00%
Theme 3	2	7.14%	2	100%	0	00%
Theme 4	2	7.14%	2	100%	0	00%
Theme 5	14	50%	11	78.57%	3	21.42%
Totals	28	100%	25	89.28%	3	10.71%

The results of comparing my own classifications with those of the expert showed a very high level of agreement, as the two raters converged in classifying 25 out of 28 comments (89.2%). Importantly, discrepancies occurred only in Theme 5—a group of comments in which the questionnaire respondents remarked on how comprehensible the error was, or why it was incorrect. These comments were of limited interest; for instance, a written comment stating that a sentence was easy to understand is largely redundant with the numerical rating.

Furthermore, to exclude the risk of agreement by chance, Cohen's kappa coefficient was computed to measure the inter-rater agreement between the expert's ratings and my own. For the 28 comments, Cohen's kappa was found to be a high value of 0.851 ($p < .001$) which represents a "very good" agreement using Altman's (1991) interpretation.

4.7. Research Ethics

The research was undertaken according to the ethics regulations of UoR and PNU. University approvals were granted by UoR on October 12, 2016, and by PNU on January 9, 2018 (see Appendices B and E). Written statements of consent to collect the data were obtained from the English department at the College of Languages, PNU. In addition, all measures were applied under supervision of the assigned PNU

research supervisor who followed up application of the following ethics measures: ensuring minimal risk to the participants; ensuring that I obtained approval from the English Department for data collection; ensuring that the collection of the data would be in accordance with the Department protocol (the essays would be collected by teachers, the requested sample was made anonymous and was handled by the department according to the sample-type requested by me, and a copy of the final sample would be handed to me by the research supervisor); and reporting the development of research to her every 6 months. She also ensured that I was not one of the instructors of the students and that I had no direct contact with them. Concerning the questionnaire, signed statements of informed consent were obtained from the participants (see Appendix K).

4.8. Summary

This chapter addressed the research methods used for this study. It included explanation for the reasons behind the selected methods of data collection and analysis, details on sampling and instrumentation, a summary of the pilot study, application of the Error Analysis, information on the administration of the questionnaire, and a statement on ethical procedures followed. Previous researchers used similar (but not identical) data collection and analysis methods, and evaluated some patterns for classifying errors according to certain linguistic dimensions. Each study, however, was distinctive, as it had its own objectives, tools, procedures, findings, and limitations to answer specific research questions.

This research study, as explained in the chapter, was also distinctive for many reasons: the site was a female university, the dataset is large in quantity, the students' level was advanced, and three methods were used (EA, CA, and questionnaire) to analyse the data. This study looked broadly at all errors within a specific portion of

syntactic phrase structure, namely the NP. This is important, as argued in the literature review (Section 2.6.2), since most of the recent research work on syntactic analysis of Arabic speakers' errors have been either too general (offering a very general overview of errors, such as: F. Ahmed (2016); Al-Asfour (2018); Barzanji (2016), or too specific (concentrating on a specific categorical unit, such as Article usage, e.g. Alhaisoni et al. (2017); Alhaysony (2012); Al-Qadi (2017); Thyab (2016). Moreover, this study concentrates on the 'Advanced Writing' course, the highest level of writing, attempting to identify if there are any problems at this specific level. In addition to that, using a large number of essays (178) helps in finding common error patterns of L1 interference in that writing level. Lightbown and Spada (2013) suggested that, when errors are shared by almost all students in a class, it is beneficial for teachers to attract students' attention to those errors and how to avoid them. Finally, this study uses three tools: error analysis (to identify the most frequent syntactic errors in Saudi female college EFL writing and analyse them), comparative analysis (to help in explaining the sources of students' writing errors), and a questionnaire (to investigate the influence of the most frequent errors on text comprehensibility).

The research results are expected to determine the learners' needs in order to modify the 'Writing curriculum', and will also allow the Saudi Higher Education Authority to increase awareness of Arabic interference in EFL writing. Because the objective is to obtain empirical findings which can inform improvements in teaching, this study provides a contribution intending to help in providing opportunities for related ideas, answering specific questions, introducing problems faced, and providing actual modifications that may help researchers in the field.

CHAPTER 5: RESULTS AND DISCUSSION

5.1. Introduction

This chapter consists of two main sections, which present the quantitative and qualitative results of the study in relation to each of the research questions. Section 5.2 presents and explains the error analysis findings on Saudi female EFL students' academic writing. It also provides a detailed linguistic analysis of the errors, illustrating the most common error types found in the data, and providing explanations of their L1 (Arabic) sources. Section 5.3 reports the results obtained from the questionnaire. These findings include both comprehensibility ratings of error-containing sentences and qualitative feedback provided by the study participants. Following the presentation of the results of each of the research questions, related findings from previous research are reviewed in relation to the results of the current study to provide deeper analysis and discussion. The chapter concludes with a summary of the findings and the answers they provide to the research questions.

Two kinds of quantitative data and two of qualitative data were obtained in this study: those from the EA and those from the questionnaire. The EA quantitative results are presented in terms of the frequencies and percentages of various classifications of errors in the Advanced Writing Exam data. The quantitative results from the questionnaire are presented through the responses to each item of the questionnaire. The qualitative results are presented through an in-depth linguistic analysis of the errors illustrating the most common error types and extended explanations of their L1 sources. The qualitative results of the questionnaire's open-ended responses are also presented in Section 5.3. The primary purpose of the qualitative results is to support the quantitative results.

The primary focus of this study was an EA of the major syntactic NP errors in Saudi female EFL college students' writing. The research questions were:

1. What are the syntactic NP errors made by Saudi female students in EFL writing?
2. Which of these errors can be attributed to interlanguage interference, and which to intralanguage effects?
3. What are the frequencies of the interlanguage errors across the different classifications?
4. Which of the most frequently occurring types of interlanguage errors have the greatest influence on text comprehensibility?

5.2. The Error Analysis Results

To address the first three questions, the collected data (consisting of 178 essays with a total word count of 58,309) were analysed using the four EA stages described by James (2013): detecting and identifying errors; locating errors within their contexts; describing errors; and classifying and categorizing errors.

The answers to the research questions will be presented first, supported by tables, followed by examples (each focusing on only one specified error that represents the setting), and finally by analysis and discussion on related previous research findings. The results are as follows.

5.2.1. *Linguistic NP Errors (Research Question 1)*

The first stage of the analysis was to identify all the NPs in the students' essays and classify them as 'correct' or 'incorrect'. The NPs were identified in accordance with the definitions of the NP and its components presented in standard sources on English grammar (e.g., Greenbaum & Nelson, 2002; Leech & Svartvik,

2013; Quirk et al., 1985) presented in Chapter 3. NPs were identified as correct if they followed standard English structure, and as incorrect if they contained any deviation from standard written English in syntactic structure, lexical choice, or word order (low-level non-grammatical errors of spelling, capitalization, and punctuation were ignored.) The classifications were established and then independently revised by a NS professional as reported in the methods chapter (see Chapter 4, Section 4.5.2.4).

Upon classification of NPs in the data into correct and incorrect, their frequencies were counted, and the corresponding percentages were calculated. As can be seen in Table 5.1. The 178 essays contained a total of 16,595 NPs, of which 12,781 (77%) were classified as 'correct' (with no syntactic errors), and 3,814 (23%) as 'incorrect' (containing one or more syntactic errors), as shown in Table 5.1.

Table 5.1. Details of Correct and Incorrect NPs

Total # of Essays	Total # of Words	Total # of NPs	Correct NPs	Incorrect NPs
178	58,309	16,595	12,781 (77%)	3,814 (23%)

The fact that incorrect NPs constitute nearly one-quarter of the total indicates that, even at this Advanced Writing Level, syntactic errors are persistent.

To provide an overview of the classification of NPs into correct and incorrect performed in the present study, several examples are provided below. Overall, most previous EA studies focused on presenting a partial picture of what errors learners produce in learning the target language, thereby overlooking their correct productions (Brown, 2000). However, in the present study, in order to obtain a more comprehensive picture of the EFL learners' performance, attention was also paid to non-errors as well as the relevant features of L2 learners' interlanguage (see also Al-Khresheh, 2010; Brown, 2000, p. 236). Examples 5.1 and 5.2 show correct NPs.

Example 5.1. Example of Correct NP (1)

Essay 151: [*A real problem*]$_{NP}$

A	real	problem
Definite Article	Adjective	Noun
Determiner	Pre-modifier	Head

Example 5.2. Example of Correct NP (2)

Essay 60: "[*A big city that has* [*many places*]$_{NP}$]$_{NP}$"

A	big	city	(that	has	many	places)
Article	Adjective	Noun	Pronoun	Verb	Quantifier	Noun
					Embedded NP	
Determiner	Pre-Modifier	Head	Post-modifier			

Both correct examples follow the rules for NP constituents in English grammatical system (Greenbaum & Nelson, 2002; Leech & Svartvik, 2013). The first example shows that EFL learners can produce complex pre-modified NPs, and the second demonstrates that EFL learners can produce a pre- and post-modified NP, pre-modified by an ADJ phrase and post-modified by a relative clause (see Chapter 3).

Furthermore, an NP was classified as incorrect when it contained one or more errors. An example of a single error in an NP is shown in Example 5.3.

Example 5.3. Example of Incorrect NP (1)

Essay 152: [*the language English*]$_{NP}$

The	language	English
Definite Article	Noun	Adjective
Determiner	head	modifier

Here, the one error is the misplacement of the adjective (adjectives precede nouns in the target language English; see Chapter 3, Section 3.3.5).

An example of an NP containing more than one error is:

Example 5.4. Example of Incorrect NP (2)

Essay 48: *[(The) a lot of people today that like [them jobs]* NP] NP …

The	a lot of	People	(today)	(that	like	them	jobs)
Definite Article	Quantifier	Noun	Adverb	Relative pronoun	Verb	Pronoun	Noun
						Embedded NP	
					VP		
Determiner	Pre-determiner	Head		Post-modifier			

In this NP, the first error is addition of the definite article "the", which cannot co-occur with the immediately following indefinite article "a." The second error is in the embedded NP: the use of the personal object pronoun "them" to modify the head noun "jobs", in place of the possessive pronoun "their" (as would be correct in standard English).

In the following two subsections, addressing the second and third research questions, these errors are broken down according to various classifications, beginning with their status as interlanguage versus intralanguage.

5.2.2. *Interlanguage and Intralanguage Errors (Research Question 2)*

To answer Research Question 2, upon identification of the errors, they were described with reference to the correct structure of the target language. Specifically, errors were classified as interlanguage when they reflected patterns of L1 (Arabic) that are different from L2 (English) structure. This step was validated by an EFL Arabic-speaking expert (see Chapter 4, Section 4.5.2.6 for a detailed description of the process).

Upon classifying all NP errors into inter- and intralanguage errors, the frequencies and percentages were calculated (see Table 5.2).

Table 5.2. Interlanguage and Intralanguage Errors

Error Kind	Interlanguage Errors	Intralanguage Errors	Total
Frequency	2,406 (58%)	1,739 (42%)	4,145 (100%)

Note: The total number of errors exceeds the total number of incorrect NPs presented in Table 5.1, since an NP can contain more than one error

As can be seen in Table 5.2, in the data, interlanguage errors considerably outnumbered intralanguage errors. Importantly, these findings are consistent with the results reported in previous studies where the same pattern was observed (AbiSamra, 2003; Alhaysony, 2012; Al-Khresheh 2010; Al-Qadi, 2017; Al Shahrani, 2018; Al-Zubeiry, 2015; Crompton, 2011; Thyab, 2016).

Examples 5.5-5.8 provide illustrations of this process.

Example 5.5. Interlanguage Error (1)

Essay 140, p.3: *"Then we can say it's the student( ) turn."*

Interlanguage Error:	The	student	turn
Standard English:	The	student's	turn

(Possessive marking is needed in standard English, see Quirk et al., 1985, pp. 321-323)

Source: The EFL learner omitted the possessive marker because no direct equivalent exists in L1 Arabic, where the "construct state" is used instead (see Chapter 3, Section 3.4.1).

Example 5.6. Interlanguage Error (2)

Essay 28, p. 29: *"people wasted their time by looking for (the) happiness while they can make it for themselves."*

Interlanguage Error:	the	happiness
Standard English:	Ø	happiness

("Happiness" is used here in a generic sense, and the Definite Article is not normally used in such contexts in English.)

Source: Nouns referring to concepts, feelings, and ideas are almost always preceded by a Definite Article in Arabic (Abu-Chacra, 2018; Ryding, 2005).

Example 5.7. Intralanguage Error (1)

Essay 28, p. 7: *"that is why all people complaining all the time in each period of their lives, either adultness, and the elderly people."*

Intralanguage Error: adultness
Standard English: adulthood
(Misconstruction using wrong derivational suffix: the student overgeneralized a rule about constructing nouns through derivational morphology. While "adultness," presumably meaning "the state of being an adult," is a possible formation using the rules of English morphology, it is not recognized as a standard word in English (McIntosh, 2013; Waite, 2012); "adulthood" would be the correct word with the meaning of "the period of life when one is an adult").

Source: L2 learners tend to overgeneralize what they have learnt, i.e., extend the use of a grammatical rule of linguistic item beyond its accepted uses.

Example 5.8. Intralanguage Error (2)

Essay 98, p.1: *"Shopping is still a happit [=habit] for all women(s) all over the world."*

Intralanguage Error: All women(s)
Standard English: All women
(Addition of redundant plural marking)

Source: Similarly, in the above example, the student over-generalized the rule of making plural nouns by double marking the irregular plural, adding the plural "s" to "women," which is already plural (Chapter 3, Section 3.3.1).

5.2.3. *Interlanguage Error Categories and Subcategories' Frequencies (Research Question 3)*

This question deals with the main categories of interlanguage errors (articles, pronouns, nouns, etc.; see Chapter 3). The quantitative results of this classification and relevant examples are reported in Section 5.2.3.1. This was followed by a more detailed and fine-grained classification of the errors into subcategories and SSTs (Surface Structure Taxonomies) within each linguistic category (e.g., within articles, deletion of definite articles, misselection of indefinite articles, etc.). Corresponding results are reported in Section 5.2.3.2.

5.2.3.1. Frequencies of interlanguage errors across the main syntactic categories of the NP

The interlanguage errors were categorized in reference to the components of the NP (as described by Greenbaum & Nelson, 2002, p. 47; Leech & Svartvik, 2013, p. 231; Quirk et al., 1985), and specifically the six main NP categories: articles, pronouns, nouns, prepositions, adjectives, and quantifiers (see Chapter 3 for details). The total number of errors in the six major categories was 2406. The frequencies of errors in these six categories are summarized in Table 5.3.

Table 5.3. Interlanguage Error Categories: Frequencies and Percentages

Category	Articles	Pronouns	Nouns	Prepositions	Adjectives	Quantifiers	Total
n	993	612	547	196	37	21	2406
%	41%	25%	23%	8%	2%	1%	100%

As seen in Table 5.3, the frequencies and the percentages showed that, among all interlanguage errors, articles, then pronouns, followed by nouns were the most frequent categories, and prepositions, adjectives, followed by quantifiers were the least frequent categories. The first three categories represent a large majority of the errors (89%); three least frequent categories together accounted for around one-tenth (11%) of the total number of interlanguage errors.

These results are similar to those of many published studies, which have found that NP interlanguage errors most frequently involved articles, pronouns, nouns, and prepositions (see Al-Khasawneh, 2014, and Al-Zubeiry, 2015, as well as others reviewed in Chapter 2). Most of these previous studies focused specifically on articles; given their high absolute frequency in English (Richards & Schmidt, 2010), they are one of the main stumbling blocks for L1 Arabic learners (e.g., AbiSamra, 2003; Alhaisoni et al., 2017; Alhaysony, 2012; Al-Qadi, 2017; Bataineh, 2005; Beina, 2013; Crompton, 2011; El Werfalli, 2013; Kassamany, 2006; Stehle, 2009; Thyab,

2016). Further, the results of the present research are in line with studies which report Articles specifically as the most frequent linguistic category of errors (e.g. Al-Khasawneh, 2014; Al-Tameemy & Daradkeh, 2019; Al-Zubeiry, 2015; Othman, 2017; Zughoul, 2002). Many article errors can be ascribed to interlanguage interference, due to the many differences between the Arabic and English article systems; a number of these are presented in relation to the example errors below.

Other categories of linguistic errors have also been relatively frequently examined in the literature. Abushihab et al. (2011) found that Prepositions (along with Articles) were the categories in which errors most frequently occurred in Arab students' writing. M. Mohammed and Abdalhussein's (2015) results were similar, except that they also found that errors involving nouns occurred with high frequency. This is broadly in line with the finding of this study, which, however, found noun errors were only about half as frequent as article errors. By contrast, Ababneh (2017) and Al Shahrani (2018) both found that the most frequent category for errors was nouns. These two authors reported different results on the second most frequent category. In the former study it was articles; in the latter, prepositions. Finally, the finding of the present study, that those three categories of errors (articles, nouns, and prepositions) occur with relatively high frequency, accord with the findings of Al-Tameemy and Daradkeh (2019).

In this study, adjectives (2%) and quantifiers (1%) were the least frequent categories of interlanguage errors. This low frequency of adjective errors relative to other categories is broadly consistent with the findings of Al-Zoubi and Abu-Eid (2014), who found that 8% of the errors in their data were in the category of adjectives. Although these errors were reported less frequently than those in the other categories, the presence of 37 adjective errors and 21 quantifier errors in the present

study indicates that students lack essential knowledge about English structure where adjectives and quantifiers are concerned. In summary, the findings of all studies, including the present study, were that the four most frequent error categories were articles, pronouns, nouns, and prepositions although the relative frequency of these categories varies between different studies.

Examples of Interlanguage Error Categories Ordered from the Most to the Least Frequent

Example 5.9. Articles

Essay 75, p. 21: *"The parent have ( ) system to avoid the lose time or health."*

Erroneous form:	Ø	system
Correct form:	a	system

("system" is being used as a singular count Noun and so requires an article).

Source: Indefinite articles do not exist in Arabic (Abu-Chacra, 2018; Beina, 2013; Qasim, 2013; Ryding, 2005).

Example 5.10. Pronouns

Essay 87, p. 5: *"It is my favorite mall that I can shopping from (it) with full feeling of happiness for several reasons."*

Erroneous form:	(it)
Correct form:	Ø

(The pronoun *it* in the relative clause is redundant with the NP *my favorite mall* the clause is modifying).

Source: In Arabic, a pronoun is inserted in the relative clause to serve as the object of a preposition referring to the noun in the main phrase (Abu-Chacra, 2018; Alotaibi, 2016; Ryding, 2005).

Example 5.11. Nouns

Essay 80, p. 31: *"This solution is better because the parents they can be responsible of their children and teach them what is wrong and right to save their childrens life( )."*

Erroneous form:	their	childrens	life( )
Correct form:	their	children's	lives

(In this context, each child has their own "life", so it would be more semantically congruous for the noun "life" to be plural.)

Source: Many uncountable (or mass) nouns in English are countable in Arabic; e.g., the English noun "life" is countable, while *hayat* 'life' in Arabic is uncountable (see Alfaifi, 2016; Sabbah, 2015, p. 272).

Example 5.12. Prepositions

Essay 24, p. 7: *"As a result, work in the same time and study make you feel nervous."*

Erroneous form:	work	in	The	same	time	and	study
Correct form:	working	at	The	same	time	as	studying[2]

("the same time" would idiomatically take "at")

Source: Arabic Prepositions are much fewer in number than their English equivalents (Al-Marrani, 2009): not every English preposition has an exact equivalent in Arabic and vice versa (Essberger, 2016; Hasan & Abdullah, 2009). For example, the Arabic preposition *fi* is equivalent to the English prepositions 'at, 'in', 'on', and 'during' (see Chapter 3, Section 3.4.6), and literally translates to "in" in English (Wehr & Cowan, 1976).

Example 5.13. Adjectives

Essay 130, p. 22: *"In addition, they help it to organize their chores by they know the important(s) things to do it before other chores."*

Erroneous form:	the	important(s)	things
Correct form:	the	important	things

(English adjectives do not take plural marking)

Source: Arabic adjectives must agree with the noun in number, and thus take plural marking (Sabbah, 2015). See Chapter 3, Section 3.4.5.

Example 5.14. Quantifiers

Essay 25, p. 15: *"When the students saving the time will becomes many time to do anything."*

Erroneous form:	Many	time
Correct form:	Much	time

("time" as used here is a mass noun, whereas "many" is only compatible with countable Nouns.)

Source: Arabic quantifiers do not distinguish between countable and uncountable nouns (Jawad, 2015); the meanings of English 'many' and 'much' are encompassed by one word *katheer* in Arabic.

[2] The correct form can also be: 'work and study at the same time …', the gerund is however preferable.

5.2.3.2. Detailed frequencies of interlanguage errors across syntactic subcategories and SSTs

The findings above show that articles, pronouns, nouns, and prepositions were the most frequent of the NP linguistic categories in which interlanguage error occurred. The characteristics of their further sub-classifications (i.e. Subcategories and SSTs) will now be examined.

Table 5.4 presents, from left to right, the frequencies of major linguistic categories (e.g. article, pronoun, etc.); their linguistic subcategories (e.g. definite article, indefinite article, personal pronoun, common noun, etc.); and SSTs (addition, deletion, misselection, and misordering).

Table 5.4. Frequency by Linguistic Category, Subcategory and Surface Structure Taxonomy (SST)

Linguistic Category	Category Frequency (*n*)	Category % (of all errors)	Linguistic Subcategory	Subcategory Frequency (*n*)	Subcategory % (of all errors)	SST Frequency (*n*)			
						Addition	Deletion	Misselection	Misordering
Article	993	41%	ART-DEF (Definite Article)	672	28%	575	92	4	1
			ART-INDF (Indefinite Article)	321	13%	0	240	81	0
Pronoun	612	25%	PRON-PERS (Personal Pronoun)	399	17%	197	74	128	0
			PRON-POSS (Possessive Pronoun)	106	4%	4	3	99	0
			PRON-REL (Relative Pronoun)	69	3%	2	48	19	0
			PRON-DEM (Demonstrative Pronoun)	38	2%	0	0	38	0
Noun	547	23%	NN-C (Common Noun)	532	22%	72	444	12	4
			NN-POSS (Possessive Noun)	15	1%	0	14	1	0
Preposition	196	8%	PREP (Preposition)	196	8%	62	27	104	3
Adjective	37	2%	ADJ-ATT (Attributive Adjective)	33	1%	6	11	4	12
			ADJ-PRED (Predicative Adjective)	4	0.2%	0	2	2	0
Quantifier	21	1%	QNT (Quantifier)	21	1%	1	4	13	3
Total	2406	100%		2406	100 %	919	959	505	23

Of the total of 993 (41%) of all errors involving articles, those in the subcategory definite article: ART-DEF (28%) were approximately twice as common as indefinite article: ART-INDEF (13%). Pronouns were the second most common category of errors, with 612 (25%). Of these, the subcategory personal pronouns: PRON-PERS was the most frequent (17%). The third most common category of errors, nouns, showed a total of 547 errors (23%); of these, errors occurred most frequently in the subcategory common nouns: NN-C (22%). The three other categories (prepositions, adjectives, and quantifiers) were the least frequent, accounting for just over one-tenth (11%) of the total errors. As most errors of these

categories were in prepositions (8%), prepositions are treated below as one of the frequent categories worthy of analysis.

The linguistic categories and subcategories were compared using chi-square and binomial tests. Chi-square tests were used to discover if the percentages of errors were equal among categories or subcategories when more than two categories or subcategories were considered. Binomial tests were used to make comparisons between pairs of categories or subcategories (see Appendix Q). The results were as follows.

Articles, the most frequent major linguistic category, occurred significantly more often than any other major category ($p < .001$). Of the articles, definite article errors are found significantly more often than indefinite articles ($p < .001$).

Pronouns, the second most frequent major linguistic category, occurred significantly more often than prepositions, adjectives, and quantifiers ($p < .001$) but not significantly more often than Nouns ($p = .06$). The personal pronouns were significantly more common than the possessive, relative, and demonstrative pronouns ($p < .001$), while the demonstrative errors were the least frequent.

Nouns, third most frequent, occur significantly more often than prepositions, adjectives, and quantifiers ($p < .001$). Within the nouns, common nouns are found significantly more often than possessive nouns ($p < .001$). Prepositions, fourth most frequent, occur significantly more often than adjectives and quantifiers ($p < .001$).

Adjectives and quantifiers were the least frequently occurring, but adjective errors occurred significantly more often than quantifier errors ($p = .048$). Among the adjectives, attributive adjectives were found significantly more often than predicative adjectives ($p < .001$).

Across all categories, the nature of the errors in order of frequency, according to the SST taxonomy totals, were:

- Deletion: 959 (40%)
- Addition: 919 (38%)
- Misselection: 505 (21%)
- Misordering: 23 (1%)

In relation to the specific subcategories within each category, as seen in Table 5.4 above, the findings are presented, discussed and explained below. To avoid repetition, further and specific explanations are appended to examples of each subcategory.

5.2.3.2.1. Article subcategories

The most frequent category for errors, by far, was Articles, with a total of 993 errors. The frequencies of errors in article subcategories by SST are summarised below.

Table 5.5. Frequency of Article Subcategories by SST

Articles Subcategories	*n*	%	Addition	Deletion	Misselection	Misordering
ART-DEF (Definite Article)	672	28%	575	92	4	1
ART-INDF (Indefinite Article)	321	13%	0	240	81	0

As can be seen in Table 5.5, most errors were related to addition of definite articles (575; 58% of all article errors), followed by deletion of the indefinite article errors (240; 24% of all article errors), deletion of definite articles (92; 9% of all article errors), and, finally, misselection of indefinite articles (81; 8% of all article errors).

The observed pattern of article errors is consistent with those found in many previous studies on Arabic-speaking EFL learners (e.g., AbiSamra, 2003; Abu-

Chacra, 2018; Alhaisoni et al., 2017; Alhaysony, 2012; Al-Khasawneh, 2014; Al-Qadi, 2017; Al-Sindy, 1994; Bataineh, 2005; Beina, 2013; Crompton, 2011; El Werfalli, 2013; Kassamany, 2006; Stehle, 2009; Thyab, 2016; Zughoul, 2002). All of these studies reported that Arabic-speaking EFL learners tend to overuse the definite Article *the*, based on overgeneralization of the Arabic rule concerning the definite article *al*. Further, they also tend to misuse or omit the indefinite article *a(n)*, which has no equivalent in Arabic. Examples 5.15-5.18 illustrate representative article subtype errors by SST types observed in the data.

Example 5.15. Addition of Definite Articles

Essay 136, p. 9: *"To be with the perfect friend it should have (the) trust which is the most important element."*

Erroneous form:	(the)	trust
Correct form:	Ø	trust

(Definite Article is not appropriate in this context, as this is speaking of "trust" as a general concept, not a specific instance.)

Source: Definite articles are used more frequently in Arabic than in English (Abu-Chacra, 2018): they are used with all noun types, including mass nouns (Jaber, 2014). In this example, the abstract noun "trust" is used with the definite article, as it would be in Arabic. The error thus clearly represents an interlanguage error as its source can be traced back to the learner's L1.

Example 5.16. Deletion of Definite Article

Essay 73, p. 45: *"please don't destroy ( ) future your kid and help them."*

Erroneous form:	Ø	Future
Correct form:	The	Future

(An Article is required for the singular countable noun. The Definite Article would be idiomatic in this case as the discourse context refers to the single, unique future, as opposed to considering alternative, hypothetical "futures"; as the noun is unique, using the is appropriate.)

Source: In Arabic, the head noun in a possessive construction should be indefinite (literally translated to: *future kid-your*), i.e. it does not include the definite article *al-* 'the' in Arabic (see Chapter 3, Section 3.4.3). As seen in the example, the Arabic possessive construction can lead to other types of errors, such as deletions of prepositions following the noun, as with "of" following the noun "future" in the above example.

Example 5.17. Deletion of indefinite article

Essay 72, p. 22: *"That is ( ) problem because we start losing the speak language."*

Erroneous form:	Ø	problem
Correct form:	a	problem

(Singular countable noun "problem" needs an overt determiner. It would be indefinite in this case because the essay context does not presuppose a unique problem under discussion, which would make the Definite Article infelicitous.)

Source: Indefinite articles do not exist in Arabic (Chapter 3, Section 3.4.3). In Arabic, the noun "problem" would be used without an indefinite article. This error can thus be traced to the learner's L1.

Example 5.18. Misselection of Indefinite Article

Essay (130-29) *"In the end, the job is important for a lot of people."*

Erroneous form:	the	Job
Correct form:	a	Job

(An article is required as "job" is a singular count Noun. In the context, this is referring to jobs in general, not a unique one, so an Indefinite Article is required.)

Source: Unlike English, Arabic also allows definite NPs (including singular, plural, abstract or mass nouns) to express generic meaning (Al-Malki, Majid, & Omar, 2014). In Arabic, the definite article *al-* (equivalent to English "the") is used with nouns of generic reference "job" (Al-Zubeiry, 2015).

5.2.3.2.2. Pronoun subcategories

In this, the second largest subcategory with 612 errors, two combinations of error types and SSTs were found most frequently.

Table 5.6. Frequency of Pronoun Subcategories by SST

Pronoun Subcategories	*n*	%	Addition	Deletion	Misselection	Misordering
PRON-PERS (Personal Pronoun)	399	17%	197	74	128	0
PRON-POSS (Possessive Pronoun)	106	4%	4	3	99	0
PRON-REL (Relative Pronoun)	69	3%	2	48	19	0
PRON-DEM (Demonstrative Pronoun)	38	2%	0	0	38	0

In the table above, among the pronouns, all four of the pre-defined linguistic subcategories were represented: personal pronouns with 399 errors (65% of all the pronoun errors); possessive pronouns 106 (17%); relative pronouns 69 (11%); and demonstrative pronouns 38 (6%). Among error type-SST combinations, addition of personal pronouns with 197 errors (32% of all pronoun errors) was first; misselection of personal pronouns was second with 128 (21%), followed by misselection of possessive pronouns with 99 (16%) errors. For pronoun errors overall, the most frequent SSTs in declining order were misselection (47%), addition (33%), and deletion (20%); there were no misordering errors involving Pronouns.

The relatively high frequency of pronoun errors, as well as all of the specific sub-patterns of pronoun errors observed, arguably are a result of interference from the Arabic pronoun system, which is more complex than that of English. For example, Arabic has grammatical gender (masculine and feminine), whereas English has a natural gender (related to sex), which is expressed only in singular personal pronouns: *he, she, it* (see Al-Zobaidy, 2016; Qasim, 2013; Salim, 2013). It is unsurprising that

the dissimilarities between the two language systems would give rise to frequent interlanguage errors (Bhela, 1999; James, 2013).

The results of the present study accord with those of Al-Zubeiry (2015), who reported that addition of pronouns is in the second rank of frequency among all errors. My results differ, however, from those of Al-Tameemy and Daradkeh (2019), who found that pronoun errors were among the least frequent. One possible explanation that could account for the differences in findings is that the latter studies were very general in their analysis (involving other errors of punctuation, spelling, capitalization etc.), whereas the former, like the current study, focused on syntactic errors only. While many previous EA studies excluded the category of pronouns from their analysis, noting that they were beyond the scope of their research (see Al-Khreshed, 2010; Barzanji, 2016), the results of other studies (e.g., Ababneh, 2017; F. Ahmed, 2016; Al Shahrani, 2018; Zughoul, 2002) converge with the present results—particularly, in reporting that pronoun additions and misselection errors are common among Arab EFL learners. Examples 5.19-5.25 illustrate pronoun subtype errors by SST types observed in the data.

Example 5.19. Misselection of Personal Pronouns

Essay 155, p. 17: *"the projects and presentations. They shouldn't lost time on it."*

Erroneous form: It
Correct form: Them
(Pronoun should be plural "them" to agree with the plural antecedent "projects and presentations.").

Source: Arabic grammar treats any non-human plural as feminine singular (Ryding, 2005; Wightwick & Gaafar, 2005), so when pronouns refer to plural forms of a non-human noun, they are put in their singular form (equivalent to "it" in English). This error type is thus traced back to the structure and morphosyntactic properties of the learner's L1.

Example 5.20. Misselection of Possessive Pronouns

Essay 108 p. 43: "*Also, have time to play or chat with them families or friends*."

Erroneous form:	them	families	or	friends
Correct form:	their	families	or	friends

(Pronoun should be possessive "their" in standard written English.)

Source: In Arabic there is only one third-person plural pronoun -*lahom* for English subject 'they', object 'them', and possessive 'theirs'. Arabic possessive pronouns are dependent suffixes that are attached to the end of a noun to explain possession (Al-Ghalayini, 2010, p. 121), and they do not change in case.

Example 5.21. Misselection of Relative Pronouns

Essay 144, p. 19: *"We must to help the poor people their children which they are their victims."*

Erroneous form:	their	children	which
Correct form:	their	children	who

(Pronoun is referring to "their children", so should be human form "who")

Source: Arabic does not distinguish between human and non-human in relative pronoun pronominal reference (Jabak, 2019, p. 108). For that reason, this error can be traced back to the learners' L1.

Example 5.22. Misselection for Demonstrative Pronoun

Essay 126, p. 4: *"I think it is the big problem in this days."*

Erroneous form:	this	days
Correct form:	these	days

(Pronoun should be plural "these" to agree with "days.")

Source: Arabic grammar treats any non-human plural as feminine singular (Ryding, 2005; Wightwick & Gaafar, 2005). So, when demonstrative pronouns refer to a plural form of any non-human noun, they are put in their singular form (equivalent to singular 'this' and 'that' in English). This grammatical property shows Arabic interference in the learners' L2.

Example 5.23. Addition of Personal Pronouns

Essay 49, p. 15: *the importance things you have to do (it) first.*

Erroneous form: (it)
Correct form: Ø
(Pronoun is redundant with "the [important] things")

Source: In Arabic, a pronoun must be included in a relative clause to serve as the explicit object of the verb, in this case referring to the noun phrase [the important things]$_{NP}$ in the main clause (Abu-Chacra, 2018; Alotaibi, 2016; Ryding, 2005).

Example 5.24. Deletion of Personal Pronouns

Essay 152, p. 15: *"So some student can't study courses so ( ) change him major."*

Erroneous form: Ø
Correct form: They
(Verb "change" needs an overt subject, which most plausibly would be "they.")

Source: Arabic allows covert or null subjects (AlAlamat, 2014, p. 446); the presence of the pronominal subjects would thus be redundant in Arabic (Najadat, 2017). The EFL learner in her writing thus transferred the Arabic structure into L2.

Example 5.25. Deletion of Relative Pronouns

Essay 31, p. 4: *"it is rare to find a person ( ) hate shopping."*

Erroneous form:	A	person	Ø
Correct form:	A	person	Who

(A wh-word is needed to open the wh-clause).

Source: In Arabic, the relative pronoun is omitted in cases where the referent head noun is indefinite (Al-Washali & Hasnain, 2013; Hamdallah & Tushyeh, 1998; Touchie, 1986). In this case, *a person* is indefinite, so the missing pronoun in the English relative clause can thus be traced back to a structure in the learner's L1.

5.2.3.2.3. Noun subcategories

In this, the third largest subcategory, two error types of SST were found most frequently.

Table 5.7. Frequency of Noun Subcategories by SST

Noun Subcategories	*n*	%	Addition	Deletion	Misselection	Misordering
NN-C (Common Noun)	532	22%	72	444	12	4
NN-POSS (Possessive Noun)	15	1%	0	14	1	0

As seen in the table above, in nouns, the great majority of errors were in common nouns, numbering 532 (22% of the total errors, with the remaining 15 errors (1%) being possessive nouns. In terms in the breakdown of common nouns by SST, most errors were deletion at 444 (83% of the common noun errors), followed by 72 (14%) additions, and 12 (2%) misselections. Among possessive nouns, nearly all of the errors (14: 93.3%) were deletion.

In this respect, L1 interference clearly played a large role, as L1 Arabic EFL learners tend to be confused by the differences between the noun systems of English and Arabic. These include differences in the treatment of countable and uncountable nouns, and the morphology of English pluralization, where irregular plurals have a system quite different from Arabic (Chapter 3, Section 3.4.1; Husni & Newman, 2013). The latter plausibly accounts for the incidence of errors involving addition or deletion of the regular English plural "-s" Lastly, the absence in Arabic of a possessive suffix similar to English "-s" (Lester, 2008) can be pointed to as a cause of errors involving the deletion of possessive marking.

These findings are consistent with those of a number of previous studies (Ababneh, 2017; Al-Khasawneh, 2014; Al Shahrani, 2018; Al-Tameemy & Daradkeh, 2019; Barzanji, 2016; Hourani, 2008; M. Mohammed & Abdalhussein, 2015; Salim, 2013; Shamsan & Attayib, 2015; Zughoul, 2002) that report frequent additions and deletions of plural marking for nouns, and deletion of the noun possessive -s. These results are also in line with those of Al Shahrani (2018), who found that that deletion of plural 's' of English nouns occurred most frequently in her data, followed by

incorrect additions of the same suffix. Examples 5.26-5.29 present some examples of noun subtype errors by SST types observed in the data.

Example 5.26. Deletion of Plural Marking on Common Noun

Essay 110, p. 1: *"It consist of more than 20 building( ), and each building have at least two flours."*

Erroneous form:	20	building( )	
Correct form:	20	buildings	

("more than 20" implies that the noun "buildings" should be plural).

Source: In Arabic, the numbers 20 through 90 disagree with the noun in number (Chapter 3, Section 3.4.4). The EFL learner who produced the above error thus followed Arabic agreement rules in their L2.

Example 5.27. Addition of Plural Marking on Common Noun

Essay 117, p. 17: *"The second solution is parents should know what their teenagers do on their phone and give them some advice(s) on how they can use it in a good way."*

Erroneous form:	Some	advice(s)
Correct form:	Some	advice

("Advice" is a mass Noun and therefore not normally used in the plural form.)

Source: In Arabic, the noun "advice" is countable (Husni & Newman, 2013). The EFL learner erroneously assumed that since *advice* is a count noun in Arabic, it would also be in English, which led to this interlanguage error.

Example 5.28. Deletion of Noun Possessive Marking

Essay 140, p. 3: *"Then we can say it's the student( ) turn."*

Erroneous form:	the	student( )	turn
Correct form:	the	student's	turn

(This is referring to the turn that belongs to the student, so possessive marking is needed.)

Source: The English possessive *'s* does not exist in Arabic. Arabic uses the possessive construct instead (Lester, 2008, p. 15). The 'possessive construct' involves one noun as the head and the "owner" of the other noun (the "possessed"), without any use of a possessive inflection, such as *dawr altaleb* 'turn the-student' (see Chapter 3, Section 3.4.1). Therefore, this is an L1 interference error.

Example 5.29. Misselection of Common Noun

Essay 149, p. 11: *"sometime the group have one or two person do not have ideas also do not care."*

Erroneous form:	one	or	two	person( )
Correct form:	one	or	two	persons

("one or two" implies plural *persons*.)

Source: In Arabic, a plural is not required in this context. Unlike English, Arabic distinguishes between dual and plural, and in formations like "two person" the numeral "two" functions to mark dual number (Chapter 3, Section 3.4.1); because of the dual-plural distinction, Arabic nouns are not in fact plural in such contexts. The error thus clearly represents an interlanguage error as its source can be traced back to Arabic.

5.2.3.2.4. Preposition subcategories

In this, the fourth largest subcategory, three error types of SST were found most frequently.

Table 5.8. Frequency of Prepositions Subcategories by SST

Preposition Subcategories	*n*	%	Addition	Deletion	Misselection	Misordering
PREP (Preposition)	196	8%	62	27	104	3

Prepositions were the fourth most frequent major linguistic category for errors. As summarized above, in prepositions, the most frequent SSTs were misselections (104; 53% of all preposition errors), followed by addition errors (62; 32% of all preposition errors) and deletion errors (27; 14% of all preposition errors). Misordering errors were very rare (3; 1.5% of all preposition errors).

These preposition errors are due to L1 interference because of the differences between the Arabic and English preposition systems. The Arabic language has much fewer prepositions than English (see Chapter 3, Section 3.4.6). As many as 150 prepositions exist in English (Essberger, 2016), while Arabic has just 20, of which only 8 are commonly used (Al-Ghalayini, 2010, p. 167). This is the reason that not

every English preposition has an exact equivalent in Arabic (Hasan & Abdullah, 2009, pp. 5-10). For example, the Arabic preposition *fee*, *min* has several translation equivalents in English *in*, *from,* and *away from*. The Arabic preposition *ala* corresponds to the English *on*, *over*, *above*, and *onto*. The Arabic preposition *bi-* corresponds to the English *in* and *at*, and *li-* corresponds to the English prepositions *to* and *for*. It is thus highly predictable that Arabic speakers would make errors of misselection when choosing prepositions in L2 English.

The present finding that 50% of preposition errors in the data were misselection errors is consistent with the findings of Al-Shujairi and Tan (2017, p. 125) who argued that Arabic L2 English learners tend to "substitute the correct preposition with a wrong one." The results also agree with Ababneh (2017), Al Shahrani (2018), and El-Farahaty (2017), who also found that that misselection of prepositions was high in frequency. On the other hand, the results of this study differ from the findings of M. Mohammed and Abdalhussein (2015) and Al-Zubeiry (2015), who found that addition of prepositions was the most frequent error type, while it was second most frequent (62 errors) in this study. The differences in this study in deletion is very low, however, because of the fact that English prepositions were larger in number compared with the Arabic ones suggested an expectation of confusion and that errors occurred more in misselection and addition. Some examples of preposition errors by different SST types are shown in Example 5.30-5.32.

Example 5.30. Misselection of Preposition

Essay 64, p. 12: *"It is good way to buy some stuff to my home."*

Erroneous form:	some	stuff	to
Correct form:	some	stuff (“For” is idiomatic.)	for

Source: In Arabic, there is only one preposition (i.e. *li*) equivalent to English prepositions *to* and *for* (Hasan & Abdullah, 2009; Wehr & Cowan, 1976).

Example 5.31. Addition of Preposition

Essay 112, p. 3: *"And there are many reasons to go (for) shopping."*

Erroneous form:	for	Shopping
Correct form:	Ø	Shopping

("go shopping" is idiomatic so the Preposition is not needed).

Source: A preposition is required in the equivalent context in Arabic, where it would not be in English (Dera, 1994): the Arabic preposition *li* (equivalent to English *to* and *for*) is required after the verb 'go' (Ryding, 2005).

Example 5.32. Deletion of Preposition

Essay 152, p. 16: *"Some ( ) the teachers don't cofritive [= cooperative] with the students in some course."*

Erroneous form:	some	Ø	The	teachers
Correct form:	some	of	The	teachers

("Some" needs "of" when used with a definite NP).[3]

Source: A preposition, here, is not required in Arabic where it would be in the equivalent context in English, and this encourages the L2 learner to omit the English Preposition (Dera, 1994). This deletion can be explained as the result of Arabic interference (Al-Sayed, 1982; Kayed, 1985), where Arab EFL learners tend to delete the English Prepositions *for* and *of*, following the Arabic preposition system (Dera, 1994).

5.2.3.2.5. Adjective and quantifier subcategories

In these, the least frequent categories for errors, three types of SST were found most frequently.

Table 5.9. Frequency of Adjectives and Quantifiers Subcategories by SST

Subcategories	*n*	%	Addition	Deletion	Misselection	Misordering
ADJ-ATT (Attributive Adjective)	33	2%	6	11	4	12
ADJ-PRED (Predicative Adjective)	4	0.17%	0	2	2	0
QNT (Quantifier)	21	1%	1	4	13	3

[3] "Some teachers" (i.e. interpreting the error as mistaken addition of an article) is also a possible correct form. However, retaining the Definite Article "the" is more natural as the discourse context is strongly presupposing a specific set of teachers (e.g. those teachers in a specific university and department) who are being discussed.

Of the total number of adjective errors (37) in the current corpus, nearly all (33; 89%) involved attributive adjectives; with a small proportion of predicative adjectives (4; 11%). The most frequent SST among the attributive adjective errors was misordering (12; 36% of all attributive adjective errors), closely followed by deletion (11; 33% of all attributive adjective errors), addition (6; 18% of all attributive adjective errors), and misselection (4; 12% of all attributive adjective errors). Quantifiers were found to be the least frequent of all categories, represented by only 21 errors (0.87% of all interlanguage errors). Of these 21 errors, 13 (62% of all quantifier errors) involved misselection, followed by deletion errors (4; 19% of all quantifier errors), misordering errors (3; 14% of all quantifier errors), and 1 addition error (5% of all quantifier errors).

The reason for the relatively high proportion of misordering among attributive adjective errors is that in Arabic adjectives usually occur post-nominally, in contrast to English, where attributive adjectives premodify the noun (Hobi, 2011), and predicative adjectives post-modify the noun. Specific L1 interference explanations will be provided after examples.

These findings agree with those of Ababneh (2017), Al Shahrani (2018), and Al-Zoubi and Abu-Eid (2014) who reported that misordering of adjectives was among the least frequent of all errors, and who all indicated that the sources of such errors were clearly L1 interference. The findings regarding quantifiers, which are seen in this study to be among the least frequent categories for errors, are consistent with those of Zughoul (2002) who revealed that there are only few occurrences of such errors, especially in the misselection and deletion of English quantifier *all*. Some examples of adjective subtype and quantifier errors by SST type are provided below (see Examples 5.33-5.35).

Example 5.33. Misordering of Adjective

Essay 75, p. 37: *"They have to put system strong for example who's used the phone during the work is need to punishment."*

Erroneous form:	Ø	System	strong
Correct form:	a	strong	system

(Word order should be "strong system", as attributive adjectives need to precede the noun they modify.)

Source: Arabic attributive adjectives usually occur post-nominally, i.e., they post-modify the noun (Chapter 3, Section 3.4.5); the interference of the Arabic word order to English is an interlanguage error.

Example 5.34. Deletion of Adjective

Essay 117, p. 25: *"One of the most ( ) problem that faces the writers is plagiarism."*

Erroneous form:	the	most	Ø	problem
Correct form:	the	most	[difficult]	problems

(There needs to be an adverb "most" to modify).

Source: L1 interference occurred in the above example because an Arabic adjective only requires a comparative word in this context (Catford, Palmer, McCarus, Moray, & Snider, 1974). The superlative in Arabic is simply the comparative made definite (adding *the*), whereas in English the superlative has a separate form; adding comparative words *most* or *least* + adjective. English grammatical rules on using the comparative words *more, most, less, and least* are not well defined to Arabic L2 learners (Catford et al., 1974). That is why, the student who produced the error above have applied the Arabic structural form to her EFL writing.

Example 5.35. Misselection of Quantifier

Essay 25, p. 15: *"When the students saving the time will becomes many time to do anything."*

Erroneous form:	many	time
Correct form:	much	time

("Time" is being used in this context as a mass noun and so would take "much" rather than "many.")

Source: The above error can be traced to L1 interference for two reasons: the fact that Arabic doesn't have strict rules regarding quantifier forms that are compatible with countable or uncountable nouns, and that the EFL learner might use "many" instead of "much" because the noun "time" is countable in Arabic. The Arabic words *Katheer*, *adeed,* or *iddat* are equivalent to English "much" and "many" simultaneously, i.e. for (un)countable nouns. *Adeed* or *iddat* (which are close to English 'many') go relatively better with countable nouns more than *katheer* (which is close to English 'much') (Jawad, 2015).

5.2.3.2.6. General discussion

The above sections have provided answers for the research questions and the frequencies and percentages of the classification of errors have been discussed in terms of major linguistic category, subcategory, and SST. Following is an extended discussion on the patterns found. In fact, if we step back to consider the overall distribution of specific SSTs across syntactic categories and subcategories, this study found that deletion was most frequent and appeared in almost all categories, followed by addition, then misselection, and finally followed distantly by misordering errors. Some subcategories did not show all SSTs; notably, addition and misordering did not occur with indefinite articles or possessive nouns, and only misselection occurred with demonstrative pronouns. Further, misordering was relatively rare across all subcategories other than attributive adjectives. A number of potential explanations for these differences in the distribution of SSTs across subcategories can be identified.

First, indefinite articles are absent in the Arabic language (Abu-Chacra, 2018; Beina, 2013; Qasim, 2013; Ryding, 2005), so there would be nothing in Arabic syntax to prompt a learner to inappropriately add an Indefinite Article (addition) or to position one in the wrong place (misordering). Secondly, Possessive Nouns do not exist in L1, as Arabic uses the possessive construct instead (Lester, 2008, p. 15). The 'possessive construct' involves one noun as the head and the "owner" of the other noun (the "possessed"; see Chapter 3, Section 3.4.1). Therefore, similar to indefinite articles, students would be expected to make deletion and misselection errors with possessive nouns, and not addition or misordering (see Chapter 3, Section 3.4.1). Third, Arabic nouns and pronouns have distinct features in grammatical gender (masculine and feminine) and number (singular, dual, and plural) that are different from English. The differences are even greater with possessive and object pronouns, as in Arabic they are *affixes* attached to prepositions or nouns (Chapter 3, Section 3.4.2) (Al-Zobaidy, 2016; Qasim, 2013; Salim, 2013), so EFL students usually misselect English possessive and object pronouns to agree with the antecedent component. Fourth and finally, in Arabic, adjectives appear post-nominally, which would account for the relatively higher proportion of misordering errors with this category. In sum, the linguistic similarities between the two languages contributed to the absence of certain kinds of errors, and the differences clearly causing errors, especially of deletion, addition and misselection types.

5.2.3.3. The sources of the most common interlanguage (L1 interference) errors

The results of this research indicate that most of the NP errors committed in the students' writing (58% interlanguage errors) were due to L1 (Arabic) interference. This section describes and explain the sources of the most common interlanguage NP

errors (across the different levels of classifications, see Chapter 4) arising from the differences between Arabic and English. The descriptions and explanations involve the NP interlanguage categories discussed above in the results relating to the third question of this research.

The first most frequent error category was articles. Many of the errors in this category are readily attributable to differences between the article systems of Arabic and English. Arabic has no clear-cut rules governing the definiteness or indefiniteness of a certain noun, but the clearest difference from English, and one of the main causes of article errors, is the fact that in Arabic definite articles are used more frequently than in English. The Arabic definite article *al-* is invariably used with all noun types: animate/inanimate, singular/plural, count/mass, and feminine/masculine (Jaber, 2014, p. 65). Additionally, in almost all contexts, Arabic also allows definite NPs (including singular, plural, abstract or mass nouns) to express generic meaning, e.g. *the people*, *the time* etc. (Abu-Chacra, 2018; Al-Malki et al., 2014; El Werfalli, 2013; Jaber, 2014). Finally, in almost all cases, nominal sentences in Arabic start with a definite noun (AlRajhi, 2011).

Example 5.36. Errors of Definite Article Additions

Essay 136, p. 9: *"To be with the perfect friend it should have (the) trust which is the most important element".*

Essay 103, p. 1: *"(The) friendship is the most beautiful relationship in the person life."*

The above examples show that Arabic EFL learners make these types of errors in their writings because the definite article *al-* 'the' appears more frequently in Arabic as compared to English. Regardless of context, the Arabic definite article almost always precedes abstract or mass nouns (i.e., uncountable; such as *trust*) and

nouns of generic reference (i.e., appear singular and plural but carry a general meaning; such as *friendship*), where the definite article is not appropriate in the equivalent English contexts (e.g. in the above examples, "trust" and "friendship" are referred to as general concepts, not specific instances, so the definite article is inappropriate).

Moreover, there are many other uses for the definite article in Arabic that might also result in their being added in contexts in which they are inappropriate in English. The definite article is used in Arabic with nouns with unique referents, such as days, weeks, meals, etc. (Buckley, 2004; Diab, 1998; El Werfalli, 2013). For example: Essay 126, p. 14: "*There is another solution which is giving more time for (the) study at (the) weekdays to spend all your weekend with family.* In Arabic, the equivalent of "weekdays" would take the definite article, but in English this usage is incorrect. In Arabic, the definite article is used with adjectives and present participles when functioning as nouns (Buckley, 2004). For example: Essay 141-12: "*...I am very sure that it will end the problem of (the) struggling from time(s) with families and studies"*. In Arabic, the equivalent for "struggling" would take the definite article, but in English this usage is incorrect because this is referring to "struggling" as a general concept, so the definite article would not be appropriate.

Definite articles in Arabic are frequently (though inconsistently) used with words for locations, (e.g. school, class, house, etc.), for example Essay 7, p. 13: "*Students have to study at university and they go back with a lot of work fro[m] the university and they will have work at (the) home"*. In Arabic, the equivalent for "home" takes a definite article, whereas in English, this usage is incorrect as "home", here, is a generic location and not a reference to a specific home.

In addition to the above differences regarding the usage of the definite article, indefinite articles do not exist in Arabic at all (Abu-Chacra, 2018; Al-Malki et al., 2014; El Werfalli, 2013; Ryding, 2005); instead, the absence of an article marks indefiniteness (Beina, 2013; El Werfalli, 2013, p. 108; Ryding, 2005; Thyab, 2016, pp. 2-3). It is worth noting that, as explained in Chapter 3, indefiniteness appears in spoken Arabic only in very formal situations through nunation, i.e. an affixation of *-un* to the end of nouns, such as *kutub-un* (Beina, 2013, p. 11).

Example 5.37. Errors of Indefinite Article Deletions

Essay 72, p. 22: *"For example, my cousin was working when he was ( ) teenager"*

Essay 75, p. 21: *"The parent have to put ( ) system to avoid the lose time or health."*

These examples demonstrate that Arabic EFL learners make such errors (deletions of indefinite articles) because Arabic does not require the use of indefinite articles in such contexts, whereas in English, countable singular noun forms such as "teenager" and "system" need an indefinite article.

The second most frequent category for errors was pronouns. Errors in this category are plausibly due to L1 interference, as the Arabic pronoun system is more complex than that of English (Igaab & Tarrad, 2019). Unlike English, in Arabic, pronouns must be inserted in a relative clause to serve as the object of a verb or preposition, referring back to the object noun in the main phrase (M. Ahmed, 2014; Ryding, 2005). Abu Charca (2018) explains that "if the antecedent is referred to in the relative clause as an object, or as having a preposition, or as being a genitive attribute, it is an attached suffix pronoun [*haa*/ *hunn*/ *hum*] to either the verb, preposition, or noun, respectively" (p. 279), as it serves as a link between the main clause and the relative clause (M. Ahmed, 2014). Some examples from the data of the addition of this suffix occurring with bases of different categories appear below.

Example 5.38. Errors of Personal Pronoun Additions

Attached to Verb: *"Even their future they will lose (it)"*.

Attached to a Preposition: *"It is my favorite mall that I can shopping from (it)"*.

Attached to a Noun: For those whose families gather at evenings. Literal*: " for those who (their) family gathering at evening"*.

Given that Arabic requires pronouns in these kinds of positions where English does not, the large proportion of additions among personal pronoun errors (197, 49%) is unsurprising.

In addition, it has been found that misselections among personal pronoun errors (128, 21%) mostly involve disagreement in grammatical features between the pronoun and its antecedent. Unlike English, "Arabic grammar treats any non-human plural as feminine singular" (Wightwick & Gaafar, 2005, p. 26). So, in Arabic, when a pronoun refers to a plural form of an inanimate (non-human) noun, it is put in the singular feminine form (equivalent to "it" in English) (Ryding, 2005; Wightwick & Gaafar, 2005).

Example 5.39. Errors of Personal Pronoun Misselections

Essay 88, p. 10: *All the problems is hard but we can solve it*. (In English, this pronoun should be plural "them" to agree with its plural antecedent, "All the problems".)

Essay 170, p. 8: "*Garnada Mall, Hyat Mall, Sahara Mall and Faisalya Mall are examples for malls in Riyadh and you can shop in it*. (The English pronoun should be plural to agree with its antecedent, the set of three malls mentioned).

It is worth mentioning that this Arabic pronoun rule also influenced the errors of misselection of demonstrative pronouns (38, 100%). For example: Essay 126, p. 4: "*I think it is the big problem in this days"*. In English, *this* should be in the plural form *these* to agree with its co-referent *days*, but was put in its singular form following the Arabic rule of treating non-human plural as singular feminine.

The third most frequent linguistic category for interlanguage errors was nouns. One Arabic source of noun errors is the differences in the morphological form of number and possessive marking between the two languages. Arabic does not have an analogue of the English plural suffix *-s* or possessive 's (see Chapter 3). Another source of L1 interference is the differences regarding those words which function as count or mass in the two languages (Alfaifi, 2016). For example, some uncountable nouns in English, such as "information, money, housework, equipment, etc.," are countable in Arabic (Alfaifi, 2016; AlKhuli, 2007; Diab, 1998; Sabbah, 2015), but not in English. These sources largely account for the deletions of common noun errors (444, 83%) in the EFL learners' writings.

Example 5.40. Errors of Common and Possessive Noun Deletions

Essay 129, p. 3: "*they have headache( ) at the end of day."* (In English, by contrast, the noun "headache" is countable, and since different students would have separate headaches individually, it would be more semantically congruous for it to be plural). In Arabic, the noun *sudaa* 'headache' is a mass noun, and for that reason, the plural *–s* was omitted.

Essay 103, p. 3: *"The friendship is the most beautiful relationship in the person( ) life."* (In English, however, the noun "person" is clearly serving as the possessor of "life", and so requires a possessive marker), but the English possessive *'s* does not exist in Arabic, as Arabic uses the possessive construct instead (Lester, 2008, p. 15).

It is important to mention that the differences in plurality (count or mass) between English and Arabic also have some influence on the errors of additions (72, 14%), which came second in rank following the deletion errors. A good example for that, in Essay 17, p. 15: "*To sum up, getting into any college without knowing any information(s) about their majors is a big problem*". (In Arabic, the noun

'information' is countable, whereas the English noun as used here is a mass noun and would not take plural marking).

The fourth most frequent category for errors was prepositions. The sources of such errors for this category can be found in the great differences between the Arabic and English preposition systems. English has over 150 Prepositions (Essberger, 2016), while in Arabic there are just 20, of which only 8 are commonly used (Al-Ghalayini, 2010). Thus, not every English preposition has an exact equivalent in Arabic and vice versa (Hasan & Abdullah, 2009). Those usage variations influenced the occurrence of misselection errors among the preposition errors (104, 53%).

Example 5.41. Errors of Preposition Misselections

Essay 169, p. 8: "*It must have a reasons to that."* In English, one would idiomatically speak of "reasons for" a thing; "reasons to" would be idiomatic before a verb phrase, but in Arabic, the preposition that is used with the noun "reasons" is *li-*, equivalent to three English Prepositions: 'to', 'for' and 'of'.

Essay 59, p. 5: "*The first reason is near of my home*." In English, *near to* would be idiomatic. In Arabic, on the contrary, *qaribun min* 'near from', *qaribun ila* 'near to', and *qarinum li-* 'near of' may be used as equivalents (Wehr & Cowan, 1976). The last form is used more often in some dialects of colloquial Arabic (including Saudi), which can possibly explain the use of "of" in the above example. The Arabic Preposition *li-* has the meaning of possession in genitive constructions and can be equivalent to the English Preposition 'of' (Ryding, 2005).

The least frequent categories for interlanguage NP errors in this study were adjectives and quantifiers. Adjectives in Arabic come after the noun, whereas in English the adjective generally precedes the noun (see also in Hmouma, 2014; Momani & Altaher, 2015). This Arabic rule influenced the prevalence of misordering among attributive adjective errors (12, 36%).

Example 5.42. Error of Attributive Adjective Misordering

Essay 75, p. 37: "*They have to put system strong for example who's used the phone during the work is need to punishment*." In Arabic, the noun would need to precede the adjective, whereas in English it would be the reverse.

Moreover, for quantifiers, interlanguage errors were related to L1 interference, as a distinction between English 'many/ much' for countable versus uncountable does not exist in Arabic. Both words are equivalent to Arabic *katheer* and are sources of errors especially in misselection, which occurred frequently among the quantifier errors (13, 62%).

Example 5.43. Error of Quantifier Misselection

Essay 114, p. 46: "*I did not get many money."* In Arabic, no distinction exists between *many*/*much*. English on the other hand, a different quantifier 'much' would be used with the mass noun "money."

In general, the above sources related to L1 differences from L2 are perhaps the most confusing as they lead EFL learners to commit frequent interlanguage errors. As we have explored above, the learners' confusion can be attributed to syntactic units that do not exist in L1 (e.g., indefinite articles *a/an*, Noun plural or possessive *s/'s* marking, and separate (detached) words for object and possessive pronouns, e.g. Arabic object and possessive pronouns are attached to prepositions (*la-ha* 'for her'), verbs (*tazawaj-ha* 'married her'), or nouns (*maktaba-ha* 'her office')), which differ in relative order (e.g., Arabic adjectives come after the noun (*warda jamila* '*rose beautiful'), or which support a greater number of lexical distinctions (e.g., the large variety of English pronoun and preposition systems (see Chapter 3, Sections 3.4.2 and 3.4.6).

5.3. The Questionnaire Results (Research Question 4)

This section reports the results of the analysis of the questionnaire responses. The questionnaire sought to answer Research Question 4 ("Which of the most frequent types of interlanguage errors have the greatest effect on text comprehensibility?"). As discussed in Chapter 4, the questionnaire consisted of a random set of 16 sentences containing interlanguage errors collected from the essays. The sample sentences illustrated target errors in the following four major linguistic categories: (1) articles; (2) pronouns; (3) nouns; and (4) prepositions. Each of these categories was represented by four sample sentences containing target errors. The four linguistic categories were selected based on the results of Research Question 3 (see Table 5.4). The sentences were presented to all participants in the same order. In an attachment to the questionnaire, the participants were also provided with excerpts from the original essays that showed each sentence in its surrounding context. The participants were asked to rate the comprehensibility of each error-containing sentence on a 4-Likert scale (4= "incomprehensible", 1= "very comprehensible"). In addition, the participants were encouraged (but not required) to write their comments regarding the error in each of the sentences in a blank field near each of the sentences. This was done to allow the raters to expand their evaluation of the error-containing sentences or provide other relevant feedback, which could then be used to inform the design of future questionnaires. The respondents were 30 EFL teachers: 15 NSs and 15 NNSs (see Section 4.6 for further detail). The remainder of this section reports the results of the analysis of the participants' comprehensibility ratings (Section 5.3.1.) and open-ended responses (Section 5.3.2).

5.3.1. *The Questionnaire Rating Results*

The first round of analysis focused on the participants' ratings of comprehensibility of the 16 sample sentences (Section 5.3.1.1). This was complemented by an analysis of the differences in the ratings provided by native vs. non-native EFL teachers (Section 5.3.1.2). The differences in comprehensibility ratings by gender, level of education, and length of teaching experience were also considered (see Appendix N).

The results of the analysis of the participants' ratings per each linguistic category and subcategory by surface structure taxonomy (SST) are summarized in Table 5.10.

For interpretative purposes, the participants' ratings of 16 sample sentences on a 4-point Likert scale were divided into two groups, according to whether the corresponding sentences were considered most likely comprehensible or not. Ratings of '1' and '2' were counted together as 'most likely comprehensible', while ratings of '3' and '4' were counted together as 'most likely incomprehensible'. This grouping served to answer the research question directly.

Table 5.10. Comprehensibility Ratings by Category, Subcategory, and SST

Major Linguistic Category	Linguistic Sub-Category	SST	Questionnaire Item Number(s)	Ratings 1-2 (Comprehensible)		Ratings 3-4 (Incomprehensible)		*M*
				n	%	*n*	%	
Article	Total			**92**	**77%**	**28**	**23%**	**1.9**
	Art-Def	*Addition*	1, 2	46	77%	14	23%	1.8
	Art-Indef	*Deletion*	3, 4	46	77%	14	23%	2.1
Pronoun	Total			**108**	**90%**	**12**	**10%**	**1.5**
	Pro-Pers	*Addition*	5, 6	55	92%	5	8%	1.4
	Pro-Poss	*Mis-selection*	7	25	83%	5	17%	1.8
	Pro-Dem	*Mis-selection*	8	28	93%	2	7%	1.5
Noun	Total			**110**	**92%**	**10**	**8%**	**1.5**
	N-C	*Deletion*	9, 12	52	87%	8	13%	1.7
		Addition	10, 11	58	97%	2	3%	1.2
Preposition	Total			**93**	**78%**	**27**	**23%**	**1.9**
	Prep	*Addition*	13, 14	53	88%	7	12%	1.6
		Mis-selection	15, 16	40	67%	20	33%	2.3
	Total			**403**		**77**		
	Average				**84%**		**16 %**	

As shown in Table 5.10, on average, most error-containing sentences were rated as comprehensible (84%). The sentences that were most frequently rated as incomprehensible contained errors of mis-selection of prepositions (33%), followed by deletion and addition of articles (both 23%), mis-selection of possessive pronouns (17%), and deletion of noun plural marking and possessive *'s* (13%). A Pearson correlation was computed to see whether there was a significant relationship between the frequency of the four most frequent NP error categories (see table 5.4.) and the comprehensibility of the sentences containing errors in those categories (summarized as the average comprehensibility ratings). The correlation value in Table 5.11 was 0.136 ($p = 0.864$), showing no significant relationship between them.

Table 5.11. Pearson Correlations between Error Frequency and Comprehensibility (1)

		Frequency	Comprehensibility
Frequency	Pearson Correlation	1	.136
	Sig. (2-tailed)		.864
	N	4	4
Comprehensibility	Pearson Correlation	.136	1
	Sig. (2-tailed)	.864	
	N	4	4

Furthermore, a Pearson correlation was also computed to see whether there was a relationship between the frequency of the four most frequent NP error subcategories and the comprehensibility of the sentences (summarized as the average comprehensibility ratings). The correlation value in Table 5.12 was -0.095 (p = 0.839), implying no significant relationship between them.

Table 5.12 Pearson Correlations between Error Frequency and Comprehensibility (2)

		Frequency	Comprehensibility
Frequency	Pearson Correlation	1	.095
	Sig. (2-tailed)		.839
	N	7	7
Comprehensibility	Pearson Correlation	.095	1
	Sig. (2-tailed)	.839	
	N	7	7

Although all 16 sentences included in the questionnaire contained errors caused by L1 (Arabic) interference, these differences are more pronounced for those (sub-)categories with the lowest percentage of comprehensible ratings. First, the high incomprehensibility of sentences containing errors of misselection of prepositions (a mere 67% of these sentences were rated as comprehensible) can be related to the observation that most English prepositions are confusing for Arab EFL learners, and thus cause errors, as learners do not have equivalents in their L1. This conclusion is

consistent with previous findings (Al-Shujairi & Tan, 2017; Al Shahrani, 2018; El-Farahaty, 2017). Second, the low comprehensibility of the texts containing errors of article addition and deletion (both 77%) can be attributed to the wider use of definite articles and the absence of indefinite articles in Arabic (e.g., AbiSamara, 2003; Abu-Chacra, 2007; Alhaysony, 2012; Beina, 2013; Al-Qadi, 2017; Al-Sindy, 1994). Third, the low comprehensibility of the texts containing errors of misselection of possessive pronouns, of which only 83% were rated as comprehensible, can be related to the fact that Arabic has grammatical gender (masculine and feminine), whereas English has natural gender (related to biological sex; see Al-Zobaidy, 2016; Qasim, 2013; Salim, 2013). Finally, the lower comprehensibility of the texts illustrating the deletion of noun plural marking and possessive *'s*, of which 86% were rated as comprehensible, can be explained by the fact that these affixes (i.e., plural *-(e)s* and possessive *'s*) do not exist in Arabic (see Ababneh, 2017; Al-Tameemy & Daradkeh, 2019; Barzanji, 2016; Salim, 2013).

As discussed previously (Section 2.5), language errors are conventionally classified into global errors, which hinder communication by preventing understanding of the intended meaning; and local errors, which do not impede comprehension (Dulay et al., 1982). The results of the questionnaire analysis demonstrated that students' errors in the four studied categories did not have a substantial impact on text comprehensibility. Accordingly, these errors could largely be considered to be local errors. This is consistent with Burt's (1975) finding that grammatical errors, such as those in nouns and noun plural marking, are local and have limited effects on comprehensibility. Similarly, Gozali (2018), Ellis (2008), and Mot (2015) also agree that grammatical errors are mainly local and do not affect comprehensibility.

5.3.1.1. Differences in comprehensibility ratings between the NSs and NNSs

As discussed in Section 5.3.1., the participants rated most sentences containing errors as comprehensible. This section explores whether the EFL teachers differed in their evaluation of the comprehensibility of error-containing sentences, depending on whether the raters were native speakers (NS) and non-native speakers (NNS) of English. The results of this evaluation are summarized in Table 5.13.

Table 5.13. Differences between NS and NNS raters

NP Categories	NSs					NNSs				
	Ratings 1-2		Ratings 3-4		Mean	Ratings 1-2		Ratings 3-4		Mean
	n	%	*n*	%		*n*	%	*n*	%	
Articles	43	72	17	28	2.08	49	82	11	18	1.87
Pronouns	53	88	7	12	1.67	55	92	5	8	1.48
Nouns	55	92	5	8	1.55	55	92	5	8	1.48
Prepositions	46	77	14	23	1.97	47	78	13	22	1.87

Note: Ratings 1-2 = most likely comprehensible, ratings 3-4 = most likely incomprehensible

As shown in Table 5.13, the two groups of raters largely converged in their comprehensibility ratings of sentences containing errors in three major categories: pronouns, nouns, and prepositions. The results of a chi-square test showed that there were no significant differences in the comprehensibility ratings between the two groups of raters for these three linguistic categories: nouns ($\chi2 = 0$, $p = 1$); prepositions ($\chi2 = 0.05$, $p = 0.827$); and pronouns ($\chi2 = 0.37$, $p = 0.263$). However, compared to non-native speaker participants, native speaker raters evaluated error-containing texts in the first category (articles) as slightly more incomprehensible. Specifically, while only a fifth (18%) of the sentences with article errors were rated as incomprehensible by NNSs, almost a third of those sentences (28%) were not comprehensible to NSs. However, in the results of the chi-square test, this difference did not reach statistical significance ($\chi2 = 1.68$, $p = 0.195$; see Appendix S for further

detail). The small difference in the ratings of sentences containing article errors could be related to the fact that NNSs' native knowledge of Arabic could have positively influenced their comprehensibility ratings, as these teachers were more likely to understand the sources of students' errors. This conclusion is consistent with Lima's (2016) finding that teachers who share their students' L1 (i.e., NNS) rated utterances as more comprehensible than teachers with a different L1. For the same reason, Eddine (2012) argued that NSs with no knowledge of L1 would be better judges of text comprehensibility, as L1 knowledge could influence raters' judgments.

To gain a deeper insight into the comprehensibility of error-containing texts, along with native vs. non-native speaker status of the raters, several other demographic characteristics—namely, gender, academic qualification, and length of teaching experience—were considered. The results of this complementary analysis are summarized in Appendix N. In brief, the differences in the ratings were generally small (see also Hultfors, 1987). However, several patterns can be noted. First, compared to female teachers, their male counterparts generally rated error-containing texts as less comprehensible. Second, the teachers with doctoral degrees rated error-containing texts in all categories as more comprehensible than did the participants with lower academic degrees. However, an increase in the levels of academic qualification did not have a uniform effect on comprehensibility ratings. For instance, EFL teachers whose highest qualification was a Master's degree rated pronoun, noun, and preposition error-containing texts as less comprehensible than did those whose highest qualification was a Bachelor's degree. Finally, the participants with more years of teaching experience generally rated errors as more comprehensible. This is perhaps unsurprising, given that more experienced EFL teachers have had more

exposure to students' errors and may thus have become more accustomed to interpreting them (see Appendix N for further detail).

To summarize, the results of questionnaire ratings suggest the following three conclusions. First, NP errors in the four linguistics categories (articles, nouns, pronouns, and prepositions) did not have a considerable influence on text comprehensibility. Overall, 84% of error-containing sentences were evaluated as comprehensible by the participants. Second, a closer look at the specific categories of errors revealed that comprehensibility of the error-containing sentences was the lowest for those (sub-)categories where Arabic and English differ the most. Specifically, this concerns the sentences containing errors of misselection of prepositions, of addition and deletion of articles, and of misselection of possessive pronouns. Third, the results of the comprehensibility ratings made by native and non-native EFL showed that, while the two groups of raters converged in their ratings of error-containing sentences in three out of four major linguistics categories (nouns, pronouns, and prepositions), they slightly differed in their ratings of the sentences containing article errors.

5.3.2. *The Questionnaire Open-Ended Results*

This section reports the results of the analysis of the respondents' open-ended comments on the questionnaire. The aim of obtaining qualitative data was to provide a deeper understanding of the quantitative findings.

As discussed previously, in the questionnaire, each sentence, along with the rating scale, was followed by a blank space for the participants to leave comments on the sentence. This was done to allow the raters to expand their evaluation of the error-containing sentences or provide other relevant feedback, which could then be used to inform the design of future questionnaires.

The analysis of the respondents' open-ended comments on the error-containing sentences revealed the following patterns. First, native speaker teachers more frequently contributed written comments. Specifically, of 15 NSs, 11 gave comments, while four did not. For the NNSs, the pattern was exactly reversed: of 15 NNSs, only four gave comments, and 11 gave none. Overall, of 480 possible commentaries (16 sentences × 30 participants), a total of 141 comments were collected. On average, while L1 English speakers commented on 8.7 sentences, L1 Arabic speakers commented on an average of 1.1 sentences.

After collecting the participants' responses and coding them under recurring issue categories (or themes), an EFL English-speaking expert validated the data (see Chapter 4, Section 4.5.2.6 for a detailed description).

In the process of coding, comments that contained remarks on how comprehensible the error was or why it was incorrect were discarded (see the examples below), as such comments were judged to be of limited interest, since they overlapped with the numerical rating.

NS2, Sentence 5: "*The redundancy [insertion of pronoun 'it'] doesn't cause me confusion.*"

NNS8, Sentence 14: "*The unnecessary word 'to' doesn't really affect comprehensibility.*"

In the entire dataset of comments, 108 were found to be irrelevant. The remaining 33 helpful comments were classified into the following four themes.

1) *Other Factors.* This theme contained the participants' comments on factors beyond the target error (e.g., sentence length, presence of other errors, etc.) that may have interfered with text comprehensibility. Some examples are below.

NS4, Sentence16: "*meaning unclear due to so many grammatical errors*."

NS14, Sentence 3: "*'thing' [a word other than the target error site] is so unclear to start with*."

NNS6, Sentence 1: "*Does the incorrect insertion of 'the' affect the comprehensibility of the text? No, not really. Still, the whole text is vague and incomprehensible.*"

This group of comments was the largest (36.3%; see Table 5.14).

2) *More Context.* This group contained the participants' comments on the need to check the surrounding context in order to be able to determine the influence of the error on text comprehensibility. Some examples are shown below.

NS1, Sentence 13: "*Mostly comprehensible as a stand-alone sentence. However, 'real number' needs the other surrounding sentences to solidify context*."

NNS7, Sentence 3: "*The original context was needed to indica[t]e the intended meaning. Otherwise, there will be some confusion over the meaning of the word 'thing'.*"

The comments in this group amounted to 30.3% of the codified comments (see Table 5.14).

3) *Common Error*. This group contained remarks that the error illustrated in the sentence was very typical among the teachers' EFL students. Some examples are shown below.

NS12, Sentence 5: "*Common pronoun errors, so easy for ESL teacher to interpret*."

NNS15, Sentence 7: "*Even though such use is very common in spoken language, it is not acceptable, but understood*."

The comments classified in in this group accounted for 21.2% of the comments in the four groups (see Table 5.14).

4) *Skip Error.* This group of comments included the raters' evaluation that the target error did not influence text comprehensibility and could be skipped. All the comments of this category were made by the same participant. An example is provided below.

N14, Sentence 13: "*Many people would just naturally skip over the incorrect insertion*."

This group of comments was the smallest (12.1%). The summary of distribution of analysed comments across the four groups is provided in Table 5.14.

Table 5.14. Frequencies of Comments in the Four Categories

n	Theme	*n*	%
1	Other Factors	12	36.3%
2	More Context	10	30.3%
3	Common Error	7	21.2%
4	Skip Error	4	12.1%
Total		33	100%

Taken together, the results of qualitative analysis suggest two important insights for further research. First, given that most of the comments involved other factors (including errors) in the sentences, in future applications of the questionnaire, it would be necessary to correct all non-target errors, as these errors could act as potential sources of confusion in the comprehensibility ratings. Second, the fact that many respondents commented on the need to check extended context supported and validated the idea of attaching to the questionnaire copies of the target errors in their original contexts.

5.4. Summary

This chapter provided answers to the research questions related to syntactic NP errors in the EFL writing of female Saudi Arabian students. The results for the four questions revealed that correct NPs were more frequent than incorrect NPs; that interlanguage errors were more frequent than intralanguage ones; that interlanguage errors were found across all the previously identified components of the NP (articles, nouns, pronouns, adjectives, prepositions, and quantifiers; see Chapter 3); and that interlanguage errors were more frequent in articles, pronouns, nouns, and prepositions and less frequent in adjectives and quantifiers.

The sub-categories of the NP components were further investigated according to their SSTs. Articles showed the highest error frequency, with errors of all four types (addition, deletion, misselection, and misordering) occurring in the data. Among articles, the most frequent errors were 'addition of definite articles,' followed by 'deletion of indefinite articles.' Pronouns came second in rank among the main syntactic categories, with the most frequent errors for this category being 'addition of personal pronouns,' followed by 'misselection of personal pronouns.' Nouns came third, with the most frequent SSTs for noun errors being deletion, then addition. Prepositions came fourth, with the most frequent SST being misselection, followed by addition. The two other categories, adjectives and quantifiers, showed fewer errors. For adjectives, misordering errors were most frequent. Quantifiers were the least frequent of all categories of errors, showing errors mainly in misselection.

In addition, the interlanguage NP error analysis on various levels of classifications (e.g., linguistic categories, subcategories, SST, etc.; see Chapter 4) helped in illustrating the most common error types found in the data and extended explanations for their Arabic sources. This revealed that Arabic EFL learners make

frequent Article errors of addition and deletion in their writing because of the broader use of the definite article *al-* 'the' in Arabic as compared to English and the absence of indefinite articles in Arabic. The frequent pronoun errors of misselection and addition were related to the fact that the Arabic pronoun system is more detailed and complex than that of English (Igaab & Tarrad, 2019). For example, Arabic requires pronouns in positions where English does not, and Arabic has grammatical gender (masculine and feminine) as compared to English, which has only a natural gender (related to sex; see Al-Zobaidy, 2016; Qasim, 2013; Salim, 2013).

The Arabic source of the frequent noun errors of deletion and addition can be associated with the differences in the morphological form of number and possessive marking between the two languages, as well as the differences regarding which words function as count or mass in the two languages. In addition, the frequent occurrence of preposition misselection and addition errors are connected to the great differences between the Arabic and English preposition systems, specifically that not every English preposition has an exact equivalent in Arabic and that Arabic sometimes requires prepositions in contexts where English does not. In regard to the least frequent categories (adjectives and quantifiers), it was found that Arabic rules of adjectives occurring post-nominally have influenced the prevalence of misordering among the attributive adjective errors. For example, the Arabic quantifier *katheer*, which is equivalent to both of the English quantifiers 'many' and 'much' (countable and uncountable, respectively), is a source of errors of misselection, which occurred frequently among the quantifier errors.

Moreover, returning to the error predictions based on the differences between English and Arabic NPs (see Chapter 3), it can be concluded that the results reported in this chapter both substantiate those predictions. Specifically, the present results

support the aforementioned predictions with regard to the following types of errors: (1) article addition and deletion errors; (2) pronoun addition and misselection errors; (3) noun misselection errors; (4) preposition misselection errors; (5) adjective misordering errors; and (6) quantifier misselection errors. In line with the CA-based predictions, these types of errors were, indeed, frequently observed in the data. However, along with confirming CA-based predictions formulated in Chapter 3, the present results also provide complementary information, such as the existence of article misselection and misordering, in addition to preposition addition errors. Overall, the results reported in this chapter are well aligned with the results of CA undertaken in Chapter 3 and complement them with new findings.

Finally, this chapter analysed the extent to which the most frequent errors in L1 Arabic EFL students' writing influenced text comprehensibility. By and large, the results demonstrated that such errors did not have a considerable impact on the comprehensibility of sentences, as rated by either native or non-native English teachers.

The results of this research were mostly in line with previous research findings on L1 interference in L2. Together, they provide empirical findings that confirm the existence of the problem and serve to draw attention to sources of errors in learners' L1 knowledge.

From the methodological perspective; while the main tool used in this chapter was error analysis, its inability to explain the sources of errors was a problem; so an effort was invested to overcome this problem. To this end, contrastive analysis was used. Within the framework of the present investigation, the combination of methodologies (EA and CA) enabled the description of errors and explanation of their sources. The combination of the two methods was further strengthened by the use of

the questionnaire to evaluate error influence on the text comprehensibility. Triangulation of three methodologies, as demonstrated in the results of this chapter, made it possible to capture more details and obtain a more comprehensive understanding of NP errors in the studied population, thereby contributing to the improvement of EFL teaching.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1. Introduction

This research investigated Noun Phrase (NP) errors in essays written by Arabic-speaking EFL learners in Saudi Arabia. It employed three tools: Contrastive Analysis (CA), Error Analysis (EA), and a questionnaire. Through the use of these tools, this study arrived at four primary outcomes. First, it confirmed that EFL learners make NP errors in writing. From the total of 16,595 NPs found in the essays 3,814 NPs, or about 23.0%, almost one quarter of the total, were marked 'incorrect' (each containing one or more syntactic errors), with the remaining 12,781 (77%) being correct. Those results were tested in accordance with the rules of English grammar, and were deemed to be important as they displayed a picture of the EFL learners' correct and incorrect performance (Al-Khresheh, 2016; Brown, 2000), as compared to previous studies that neglected the proportion of correct NP utterances and concentrated only on errors (e.g., Abushihab et al., 2011; F. Ahmed, 2016; Al-Khasawneh, 2014; Al Shahrani, 2018; Al-Zubeiry, 2015; Barzanji, 2016; Sawalmeh, 2013; see also Chapter 2, Section 2.6).

Second, the results of the error analysis showed that those errors included both interlanguage (L1 interference) and intralanguage (developmental) errors. With a total of 2,406 (58.04%) interlanguage errors and 739 (41.95%) intralanguage errors, the ratio of the two error types was approximately 3:2, suggesting a high frequency of interlanguage errors in Arabic students' writing. These findings are largely consistent with corresponding results from previous studies (AbiSamra, 2003; Alhaysony, 2012; Al-Qadi, 2017; Al Shahrani, 2018; Al-Zubeiry, 2015; Crompton, 2011; Thyab, 2016).

Third, according to the findings, interlanguage NP errors most frequently occurred in the following four syntactic categories: Articles, Pronouns, Nouns, and

Prepositions. Jointly, errors in these four categories amounted to 97% of all interlanguage errors. The most frequent category where interlanguage errors occurred was articles (41%), followed by pronouns (25%), nouns (23%), and prepositions (8%). At the same time, interlanguage errors in the remaining two NP categories—Adjectives and Quantifiers—were less frequent. Comprising of merely 3% of all cases, errors in adjectives were twice as frequent as those in quantifiers (2% vs. 1%, respectively). These findings are congruent with the results of previous studies on the most frequent errors (Al-Khasawneh, 2014; Al-Tameemy & Daradkeh, 2019; Al-Zubeiry, 2015; M. Mohammed & Abdalhussein, 2015) and the least frequent (Ababneh, 2017; Al Shahrani, 2018; Al-Zoubi & Abu-Eid, 2014).

Fourth, the results also revealed that the most frequent errors had only a slight influence on text comprehensibility, as they were local errors (Burt, 1975; Gozali, 2018). Specifically, both native-speaker and non-native speaker teachers rated 84% of the errors as comprehensible. Some also offered open-ended comments stating that some of those errors were familiar to them and (for NSs) that they tended to skip certain errors in reading. These results suggest that the most frequent NP errors in L2 student writing have only a minimal influence on text comprehensibility.

6.2. Benefits of Methodological Triangulation

Taken together, the results of the present study demonstrated that the combination of three methodologies used in the present study—namely, error analysis, contrastive analysis, and a questionnaire—can provide meaningful insights into the patterns of learners' errors and the causes that underlie those errors. In this section, I discuss the benefits of such methodological triangulation, which allowed me to compare and combine the quantitative meta-analysis and qualitative meta-synthesis results (Haneef, 2013).

As revealed by the findings, EA is an effective technique for identifying and classifying errors (Jabeen & Mustafai, 2015). In the initial stages of L2 learning, learners are unaware of the L2 system and rules, so they tend to either generalize the rules within the L2 or apply their knowledge of L1 to L2. In this context, EA is a powerful analytical tool to examine the learners' L2 production and find specific types of errors in order to eventually help learners to avoid these errors in the future (James, 2013). For example, misuse of the English indefinite article ('a') due to its absence in the learners' L1 could be minimized by a more extensive grammar practice in L2.

However, despite its advantages, EA does not help to determine the sources of interlanguage errors. Accordingly, to bridge this methodological gap, contrastive analysis (CA) was used. CA is a method concerned with comparing two or more languages to identify their differences and similarities (Fischer & Fischer, 1979; Gedion et al., 2016, p. 103). In the present study, employing CA was necessary because the aim of the present study was to determine the L1-L2 differences and provide explanations for the errors related to L1 interference (James, 2013). The NP error sources were related to structural and linguistic differences between Arabic and English. For example, due to the overuse of the definite article [*al-* 'the'] in Arabic as compared to English, Arabic learners of English frequently made errors in the use of English articles (see also Abu-Chacra, 2018; Beina, 2013; Qasim, 2013). Likewise, owing to the differences in the morphological form of number and possessive marking between the two languages, as well as the differences regarding which words function as count or mass (Lester, 2008, p. 15), Arabic EFL learners more frequently made errors of deletion and addition of these markers.

Finally, the use of the two methods was complemented with the third technique—a questionnaire employed to gather teachers' quantitative and qualitative feedback about the effect of the learners' errors on text comprehensibility. Both native speakers and non-native speaker teachers were presented with examples of the most frequent interlanguage NP error categories. According to the results of questionnaire analysis, most participant teachers evaluated errors as local errors and assessed that these errors had only a slight influence on text comprehensibility.

6.3. Contributions to the Field

The results of the present study contribute to the EFL field in the following ways. First, considering that none of the previous studies has applied error analysis to investigate NP errors in Arabic EFL learners' writing, the present study is unique as a comprehensive investigation of a large-scale data set (178 essays containing a total of 58,309 words, collected from Saudi female students at Princess Nora University [PNU]).

Second, to the best of my knowledge, the present thesis is the first study where, in order to ensure the quality of the research, an English native speaker professional revised the error identification stage (for an exception, see Ngangbam, 2016), while an NNS bilingual expert revised the classification of errors into interlanguage and intralanguage categories.

Third, in contrast to previous EA studies that focused only on incorrect utterances, the present study included a quantitative evaluation of both correct and incorrect NPs. Likewise, in contrast to most (if not all) previous studies (e.g., Abushihab et al., 2011; Al-Khasawneh, 2014; also see Section 2.6), the present study complemented error analysis with a contrastive analysis specifically tailored to fit the needs of this study. CA provided a baseline for the L2, as well as the description of all

possible morphosyntactic components of the Arabic NPs and their potential L1 interference in the learner's version of NPs; this, in turn, made it possible to identify and classify interlanguage errors and explain their sources. Only one article on CA between Arabic and English related to this study on the NP was found, specifically a study conducted by Al-Najjar (2014); this was not as detailed, and it only concentrated on the Determiner Phrase within the NP.

Fourth, the present study looks at all errors within a specific portion of syntactic phrase structure, namely the NP. In addition, it included an extensive and detailed analysis on various levels of classifications (e.g., linguistic category, Subcategory, SST, etc.; see Chapter 4 for details), which helped in illustrating the most common error types found in the data and extended explanations for their Arabic sources. To date, most of the previous EA studies were either based on partial research evidence concerning a few specific linguistic components, such as Article usage (see Alhaisoni et al., 2017; Alhaysony, 2012; Al-Qadi, 2017; Thyab, 2016), or provided a general overview of errors (see AbiSamra, 2003; Abushihab et al., 2011; Ahamed, 2016; Al-Zubeiry, 2015). Most of these studies were generally not based on rigorous analysis (many of them have not employed an error taxonomy classification subdivided into layers: sets of error types at different levels, see Chapter 2), which is not beneficial to drawing accurate conclusions.

Finally, conducting a questionnaire on the effect of the most frequent NP errors on text comprehensibility addressed a topic which has long been under-investigated in the field, with sparse results (James, 2013).

Taken together, the results of the present study make several meaningful contributions to the field of EFL teaching and EA research methodology. Along with enriching the field of EFL pedagogy, the results are also helpful to formulating

relevant recommendations related to the following three areas: (1) curriculum design; (2) teachers' preparation; and (3) EFL learners' needs. In Sections 6.4-6.6, these three areas are discussed in further detail.

6.4. Recommendations for Policymakers

As convincingly demonstrated by the results (see Chapter 5), even advanced-level English students at PNU make a substantial number of NP errors (58%), and this number is considerably higher than should be expected among the students of this level of proficiency in their L2. This highlights the urgent need for changes in the Saudi Universities Education Policy, the university-level syllabus of 'writing skills', as well as in other policies related to teaching methods and the use of technology in writing. Relevant measures that could be implemented at Saudi Arabian universities to address this concern include enhancing teachers' awareness of the existence of interlanguage errors; informing students that the differences between L1 and L2 can cause errors; and teaching both language instructors and students effective ways to avoid potential errors by alerting them to the fact that linguistic structures should be learned according to the system of the target language (TL). In addition, in the context of the fast development in the education field, regular reviews should be made to update policies to ensure consistency across relevant policies. Furthermore, changes at the policy level can include organizing training sessions designed to update EFL teachers on the latest developments in their field and informing them about empirical research findings on interlanguage errors.

6.5. Recommendations for Teachers

This section outlines several suggestions and strategies for EFL teachers that would help them address the deficiencies in students' L2 writing skills revealed by the results of the present study.

Writing is a skill and skills are developed through practice and persistence. Blanchard and Root (2004) noted that EFL students are not intuitively gifted writers. In order to help students master the writing skill, teachers need not only to teach writing techniques and style, but also need to explain to them the similarities and differences between Arabic and English (Al-Qadi, 2017) to promote knowledge and understanding of the existing problem. This will help increase their awareness of the specific sources of common interlanguage errors, permitting them to directly address the causes of errors with their students (Al-Zoubi & Abu-Eid, 2014; Jobeen, Kazemian, & Shahbaz, 2015).

As demonstrated by the results of the present study, structural differences between Arabic and English are a major source of NP errors in EFL writing. Therefore, success in avoiding errors depends on appropriate teaching of the target language NP structure and agreement between its components through an understanding of correct structure. In this context, the role of EFL teachers is to help students to effectively recognize their errors and carefully deal with them (Al-Khresheh, 2016; Barzanji, 2016). Specifically, at early stages of L2 teaching, teachers should focus on problematic NP areas (e.g., formulation of the NP categories, particularly the most frequent ones), which are less prone to further correction at later stages of L2 learning (Al-Zoubi & Abu-Eid, 2014; Valero, Fernandez, Iseni, & Clarkson, 2008).

In addition, upon encountering repeated linguistic errors in their students' work, teachers are encouraged to do some analysis and find the sources of the errors they see. The results of the present study provide illustrative examples and detailed explanations of the most common interlanguage NP errors (see Section 5.2.3.1.3), with relevant analysis across the various levels of classification (see Chapter 4).

Furthermore, teachers are advised to give their students ample time to practice writing (Barzanji, 2016); in fact, extensive practice in L2 sentence structure in general and in NPs in particular would help accustom students to the English patterns of expression.

Moreover, EFL teachers should also invest more effort in making their students aware of the common types of errors. With respect to NP errors, greater attention to the most frequent types of errors would definitely assist in avoiding such errors. According to the results of the present study, common error types in Arabic-speaking students' EFL writing include incorrect article usage (inappropriate use of definite vs. indefinite articles that do not match the presence or absence of a unique referent); the lack of pronoun-antecedent agreement in gender or number; incorrect plural marking in countable and uncountable nouns; failure to use irregular plurals; misuse of possessive *–'s*; and inappropriate selection of prepositions.

With regard to relevant language activities, EFL teachers are encouraged to conduct annual competitions to motivate their students to write L2 short stories. This exercise will provide the learners with a challenging, but stimulating, context to construct correct syntactic forms (including NP components). Those correct forms will reinforce students' use of correct written English, raise their awareness about the uses of NP structures; help them understand the relationships among NP components, and provide the learners with ample examples of correct NP components in terms of

addition and deletion of articles, usage of pronouns, plural noun forms, and preposition usage and choice.

Finally, teachers should remember that their individual attention to students and constant follow-up on students' writing will lead to improvement (Barzanji, 2016; Hattie & Timperly, 2007; Myles, 2002). In order to avoid structural linguistic errors, students require continuous and explicit follow-up from teachers as a part of the teaching process (Myles, 2002).

6.6. Recommendations for EFL Learners' Future Needs

Despite the relatively early start of learning English at school in Saudi Arabian formal education (i.e., from the fourth grade), teaching English in Saudi Arabia faces several important challenges. These include students' lack of practice and limited exposure to natural communication with native speakers (Moskovsky & Picard, 2019; Rabab'ah, 2003), which impede the learning process. Another group of concerns with teaching English in the country is related to curriculum design, quality of writing materials, and quality of teaching.

The results of the present study provide several meaningful suggestions towards solving the issues discussed above. First, curriculum documents should include teaching goals that promote excellence. Second, only qualified EFL teachers (with high proficiency in English, know-how in teaching, and familiarity with students' L1) need to be in the classroom. Third, students should be taught adequate communicative techniques for better performance in international communication. Fourth, students should be made aware of available up-to-date technology that can help them develop their ability to produce error-free writing (e.g., Grammarly, Scribens, Reverso, etc.). Finally, students' awareness of the impact of their native language on their L2 output should be improved. Following all these

recommendations and finding ways on how to achieve them would ensure a better L2 learning experience in the future.

6.7. Limitations

The present study has several limitations. First, due to the focus on the combination of a particular L1 and L2 (Arabic and English), the results may not be generalizable to other language combinations. Due to inherent differences between languages, the analysis performed on a different pair of L1 and L2 would in all probability reveal different error patterns. In this respect, it should be noted that errors are more frequent in L2 English writing when the L1 is Arabic or Chinese (James, 2013), but significantly fewer when the L1 was German or Spanish (Katzner, 2002). Schachter (1990) explained that when the structural forms of L1 (e.g., Korean) were considerably different from English, learners made more errors; conversely, errors were fewer when the structural forms of the L1 (e.g., Dutch) were similar to English.

The second limitation of the present study is a gender bias in the studied sample: female students produced all the essays. While no fundamental differences between female and male EFL learners are expected (Salem, 2006), in future research, it would be necessary to analyse more gender-balanced samples.

Finally, the third limitation of the present study is related to the focus on advanced students' written essays. Accordingly, the conclusions may not necessarily be generalizable to other language skills (e.g., listening, speaking, and reading), to students with other levels of proficiency in English (e.g., beginners and intermediate), and to other types of writing tasks (e.g., answering questions, reporting, making notes, filling forms, book reviews, etc.).

6.8. Future Research Directions

Considering the limitations of the present study discussed in Section 6.6, this section discusses future research directions that would expand the results of the present study. In future research, it would be meaningful to compare the performance of students from different universities to see whether the same pattern of persistent errors would also be observed. In such comparative research designs, considering other dimensions, such as program objectives, teaching materials, teaching methods, and audio-visual aids, would help to establish whether these factors influence the frequency and type of errors.

Furthermore, as discussed also in Section 6.6, follow-up research at institutions with male students would also help to determine whether there are gender differences with respect to NP errors.

Likewise, another important variable to consider in future studies is the level of students' L2 proficiency. Specifically, further research could compare the types of errors committed by students with different levels of L2 proficiency, such as beginners vs. advanced students. Research along these lines would show whether an extended exposure to L2 learning reduces errors.

In addition, further research is needed to investigate avoidance phenomena—for example, whether there is a relationship between EFL teaching strategies and students' avoidance of using specific NP constructions. In order to identify teachers' EFL teaching strategies, several complementary tools—such as face-to-face interviews with teachers and students—could be used. Research in this manner would reveal the degree to which teachers and students are aware of different kinds of errors, as well as provide meaningful insights into the effectiveness of specific teaching methods.

Similarly, future studies using EA in L2 should also consider using other evaluation techniques (e.g., multiple-choice questions), in order to examine whether the same types of errors appear when a different evaluation tool is used.

It might be useful to conduct error analyses, following Jarvis's (2000, 2010) suggestions, to eliminate areas of confusion concerning the nature and classification of errors involving comparisons between source L1 groups or comparisons of target languages, as this may yield higher levels of methodological rigor in cross linguistic influence investigations.

Finally, future research should also embrace other L1-L2 combinations, with the focus on both typologically related (e.g., German vs. English) and unrelated (e.g., Arabic vs. English) languages. Such research may help to validate the conclusions drawn in the present study regarding the particular Arabic-English differences, which appear to be responsible for students' errors. Such comparative error analysis could include, for instance, Spanish or German ESL learners—i.e. the speakers whose L1s are structurally closer to English.

6.9. Conclusion

By definition, interlanguage errors are errors caused by L1 interference with L2 production (Schachter & Celce-Murcia, 1977, p. 443). L1 interference has been found to be a major obstacle in second language learning (Alhassan, 2013; Knapp et al., 2009; Richards, 2014) and a primary source of L2 learners' linguistic errors, irrespective of their L1 (Kharma & Hajjaj, 1989; Lim, 2010; Mahmoud, 2005; Ngangbam, 2016; Richards, 2014). According to Al-Nofaie (2010), EFL learners usually make use of their L1 as a tool to learn English. However, while this reliance on L1 reinforces L2 learning in cases when L1 and L2 are typologically related

(structurally similar) languages, it can impede learning when this is not the case, thereby leading to learners' interlanguage errors.

Overall, as illustrated in previous chapters, error analysis is an effective investigative tool to identify, describe, and categorize errors. EA helps to find L2 learners' errors, and it guides EFL researchers and educators to identify the causes for interlanguage errors. In addition, EFL educators can use EA-based results to create more teaching and learning experiences and more effective programs.

Errors are an intrinsic component of L2 learning: we are human, so we err. Accordingly, making errors in L2 learning should be considered as an indicator of learning progress. Overall, L2 learners' errors are important in three ways: a) they inform teachers about the types of errors; b) they suggest to teachers how to help learners progress further; and c) they provide evidence on how to appropriately develop relevant teaching strategies. Therefore, L2 teachers should strive to precisely identify the nature of students' errors and find ways to effectively deal with them. These efforts to assist L2 learners in avoiding interference errors should rely on a profound understanding of the main differences between their students' L1 and L2. Conversely, L2 teachers should be aware of the similarities between the two languages, in order to use those similarities to reinforce learning. Informed by the structural differences between L1 and L2, second language teachers should also instruct L2 learners to avoid literal translation from L1, and this approach may impede faster learning. Finally, it is important to find ways to help language learners observe their interlanguage errors (e.g., through recording errors in context, having students' pair or group feedback, etc.) to allow them to correct themselves or their classmates. This will eventually prevent L2 learners from making errors and facilitate their L2 learning. In this respect, one relevant technique to practice in L2 classroom is process

writing. This technique involves a multi-step process of prewriting, writing, revising, editing, and making a final version and would help EFL learners to eliminate interlanguage errors for better learning development.

To conclude, any educational improvement requires a positive attitude towards change. Such change requires influence on policymakers and the ability to persuade them, which, in turn, requires convincing empirical evidence for the need to change. In this respect, the results of the present research revealed three important facts about students' syntactic errors in EFL writing. First, incorrect NPs in learners' essays amounted to around 23% of all identified NPs; second, interlanguage errors due to interference of L1 were more frequent than normal developmental errors; and third, the most frequent types of errors were associated with structural or linguistic differences between English and Arabic.

This evidence suggests the urgent need to introduce adequate modifications in the PNU policies. Some of these policies are discussed in Section 6.3. When these changes in PNU policies are implemented, the university is advised to design periodic training programs for teachers to provide them with adequate techniques to help in achieving their aims. Likewise, providing continuous assessment of academic writing plans is expected not only to help teachers to achieve this goal, but also facilitate learners' L2 learning.

In the long run, differences between languages should not be an obstacle in L2 learning. When teachers and students interact in a foreign language, they learn and live the other's experience to better feel the language and thus reach a better understanding. Through a continuous interaction of teachers and students in L2, as well as through teachers' awareness of major sources of interlanguage errors and using adequate approaches to manage these errors in L2 classroom, L2 learners can

accumulate knowledge of error sources and master effective ways to avoid such errors in their L2 speaking and writing.

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APPENDICES

Appendix A: Glossary of Terms

Adjective (ADJ): A syntactic category of words that primarily serve to modify nouns or noun phrases. For sub-types, see *attributive adjective* and *predicative adjective*.

Article (ART): A syntactic category of words which serves to specify the definiteness or indefiniteness of a noun (see *definite article* and *indefinite article*).

Attributive adjective (ADJ-ATT): An adjective that is part of the noun phrase headed by the noun that it modifies, for example *blue* in the noun phrase *blue sky*. Contrast *predicative adjective*.

Behaviourism: A theoretical framework in psychology which assumes that a subject's behaviour is the result of learned associations between stimuli and responses.

Cognitivism: A theoretical framework in psychology which considers patterns of thought, knowledge, and mental states, as opposed to only overt stimulus-response behaviour, as in behaviourism (q.v.)

Comparative Analysis (CA): See contrastive analysis.

Comprehension: The capacity to understand intended messages of written or spoken communication of a language.

Common noun (NN-C): A noun used to refer to a general class of entities or instances of such a class. Contrast *proper noun*.

Count noun (NN-CNT): a noun which refers to discrete entities that can be counted. Contrast *mass noun*.

Comprehensibility: The capacity to formulate messages that are understandable by a listener or reader of a language.

Contrastive Analysis (CA): An approach to errors in language learning based on identifying differences between the learners' L1 and L2, on the assumption that these areas will be most likely to give rise to difficulties in learning.

Cross-linguistic influence: "A cover term used to refer to phenomena such as borrowing, interference, and language transfer in which one language shows the influence of another" (Richards & Schimidt, 2010, p. 148). It is sometimes used interchangeably with the term *interference*.

Definite article (ART-DEF): An article that marks a noun phrase as definite; that is, as referring to a specific, identifiable entity in the discourse context. In English the definite article is *the*. Contrast *indefinite article*.

Demonstrative pronoun (PRON-DEM): A pronoun that refers to a specific entity or set of entities that are being referred to in the discourse and distinguished from others. Demonstrative pronouns in English include *this* and *these*.

Developmental error: An intralanguage error. So called because such errors result from an L2 learner having incompletely developed knowledge or mastery of the L2. For example, in learning English, L2 learners often produce noun forms such as *womens*, *childrens*, and *teeths* instead of *women*, *children*, and *teeth*. This is thought to be because they have learned the plural inflection formation and then apply it to all nouns.

English as a foreign language (EFL): Refers to the teaching of English to speakers of other languages, in countries where the English language is not widely spoken or used. Contrast with ESL.

English as a second language (ESL): Refers to the teaching of English to speakers of other languages, in countries where the English language is widely spoken or used. Contrast with EFL.

Error Analysis (EA): An approach to errors in language learning based on analysing a sample of learners' errors to gain understanding of the state of their knowledge responsible for these errors.

Error comprehensibility: The degree to which an erroneous form produced by a language learner is understandable by a reader or listener of a language. Often measured by a Likert scale (Sheppard, Elliot, & Baese-Berk, 2017).

Indefinite article (ART-INDF): An article which marks a noun phrase as indefinite; that is, one which does not refer to any specific entity that exists in the discourse context. In English, the indefinite article is *a* before consonants and *an* before vowels.

Intelligibility: The degree to which listeners or readers can correctly identify words they hear or read. Often measured by correct transcription (Sheppard et al., 2017).

Interlanguage error: An error made by a language learner caused by inappropriately generalizing a property of the L1 to the L2.

Intralanguage error: An error made by a language learner caused by inappropriately generalizing properties of one L2 structure to another L2 structure.

Interference error: An interlanguage error; so called because properties of the learner's L1 are interfering with correct use of the L2.

Likert scale: A psychometric rating scale, commonly used in questionnaires, in which participants select from a set of ordered values indicating their degree of agreement or disagreement with a statement.

L1: First language; a language that a person speaks natively.

L2: Second language; a language that a person learns later in life rather than acquiring natively.

Mass noun (NN-MAS): A noun that designates referent that is treated as an undifferentiated unit as opposed to discrete entities, and hence cannot be counted, e.g. *water* in *the tub is full of water*. Also sometimes called a non-count noun or non-countable noun. Contrast *count noun*.

Native language (**NL)**: A language which an individual acquires natively, early in life, without explicit teaching.

Non-native speaker (**NNS)**: An individual who did not natively acquire the language in question as an L1.

Non-count noun: See mass noun.

Noun (NN): A syntactic category of words that generally serves to refer to concrete or abstract entities. Depending on the language, nouns may inflect for features such as number, person, noun class (such as grammatical gender), and/or case. For subcases, see *common noun*, *possessive noun*, *proper noun, count noun,* and *mass noun*.

Noun phrase (NP): a syntactic projection headed by a noun.

Native speaker (**NS)**: An individual who acquired the language in question as an L1.

Personal pronoun (PRON-PERS): A pronoun that refers to entities of a particular grammatical person, e.g. English first person *I*, *me*, *we*, *us*, second person *you*, or third person *she*, *her*, *he*, *him*, *they*, *them*, *it*.

Possessive noun (NN-POSS): A noun marked to indicate its status as the possessor of another noun or noun phrase, e.g. *author's* in *the author's opinion*.

Possessive pronoun (PRON-POSS): A pronoun that indicates a relation of possession, which may appear together with the noun it modifies (e.g. English *my* in *my opinion*) or without an accompanying noun (e.g. English *hers* in *I prefer hers*).

Predicative adjective (ADJ-PRED): An adjective that is not part of the noun phrase headed by the noun it modifies, and is instead linked to that noun phrase via a copula or other element, e.g. *blue* in *the sky is blue*. Contrast *attributive adjective*.

Preposition (PREP): A syntactic category of words that precede nouns or noun phrases to express spatiotemporal relations (e.g. English *in*, *after*) or semantic roles (e.g. English *for*, *of*). Such words in other languages that follow the noun the modify are known as *postpositions*. Prepositions and postpositions are collectively referred to as *adpositions*. Sometimes *preposition* is used to refer to all such words cross-linguistically, regardless of their linear order.

Pronoun (PRON): A syntactic category of words that refer to or substitute for a noun or noun phrase elsewhere in the discourse. For subtypes, see *demonstrative pronoun*, *personal pronoun*, *possessive pronoun*, *relative pronoun*.

Proper noun: A noun that refers to specific entity, as opposed to a member of a class of entities. Contrast *common noun*.

Quantifier (QNT): A syntactic category of words that modify a noun phrase to express quantity, e.g. English *many*, *some*, *every*, *few*, or *much*.

Relative pronoun (PRON-REL): A pronoun that marks a relative clause, e.g. English *that* in *The essay that I wrote*. In this example, *that* refers to *The essay*, and functions as the grammatical object of *wrote*.

Second language learning (SLL): The process of learning a second language.

Systematic random sampling: A method for selecting elements from an ordered sampling frame in which one element is chosen randomly to include in the sample, and every *k*th element after it is also included, continuing through the frame until the desired number of elements is chosen. If there are *N* elements

in the frame, and the desired sample size is *n* elements, the value *k* (known as the sampling interval) is equal to *N*/*n*.

Target language (TL): The second language which a learner is seeking to learn. So called because the learner's target is to attain a state of knowledge which resembles that of a native speaker of the language.

Appendix B: Roehampton University Ethics Approval Letter & Statement

Letter:

Research Office
University of Roehampton
Grove House
Froebel College
Roehampton Lane
London SW15 5PJ

Department of Media, Culture & Languages,
University of Roehampton
Southlands College, University of Roehampton
80 Roehampton Lane
London SW15 5SL, UK

To Whom it May Concern:

Project Title:	**A Syntactic Analysis of Arabic language interference in Saudi College Students'**
Lead Investigator:	**Dina Alhajailan**
Reference:	**MCL 16/ 028**
Department:	**Media, Culture & Language**

On behalf of the University of Roehampton Ethics Committee I am pleased to confirm that, under the procedures agreed by the University of Roehampton Ethics Committee, the Department of Media, Culture & Language approved the above ethics application and confirmed that all conditions for approval of this project have been met on 12th October 2016.

We do not require anything further in relation to this application.

Yours faithfully,

Professor Garry Marvin
Ethics Committee Chair

Statement:

The research for this project was submitted for ethics consideration under the reference MCL 16/ 028 in the Department of Media, Culture & Language and was approved under the procedures of the University of Roehampton's Ethics Committee on 12.10.16.

Appendix C: Fieldtrip Insurance Coverage

Confirmation of Travel Insurance MCL 16/ 028 - Dina Alhajailan - Insurance Cover - Saudia Arabia, date TBC

3

Good Afternoon

We are pleased to confirm coverage of travel insurance for your forthcoming trip to Saudi Arabia. Please provide your travel dates once confirmed.

Prior to your trip we recommend that you take the time to review the following page to ensure you are fully informed of any risks or dangers that may be presented to you during your trip.

· https://www.gov.uk/foreign-travel-advice/saudi-arabia

If in the event your personal safety is in danger or you feel that you require security advice**. You need to contact "Control Risks" on +44 20 7939 8900** This number is available 24 hours a day 7 days a week and is manned by experienced security consultants who can offer you immediate advice. (Collect calls are accepted)

We also must insist that you remain in contact on a frequent basis with a member of staff who is aware you are travelling and your travel plans. We also recommend that you remain vigilant at all times particularly during religious holidays if they occur during your visit.

Accompanied with this email is a copy of our travel insurance quick reference card if you have any problems with your travel or require medical attention. The numbers on this card are available 24 hours 7 days a week.

We also recommend that you visit our travel insurance companies information portal prior to your departure.

- http://www.mylifeline.co.uk

Appendix D: Saudi Ethics Training Course Certificate

Certificate of completion

شهادة اتمام دورة الكترونية

The National Committee of BioEthics (NCBE) at King Abdulaziz City for Science and Technology (KACST), certifies that

تشهد اللجنة الوطنية للأخلاقيات الحيوية بمدينة الملك عبدالعزيز للعلوم والتقنية بأن

DINA TALAL ALHAJAILAN

دينا الحجيلان

Successfully completed the NCBE Web-based training course (Bioethics online training course), so he was awarded this certificate.

قد اجتاز الدورة الالكترونية لأخلاقيات البحوث الحيوية عبر الموقع الالكتروني للجنة. وبذلك تم منحه هذه الشهادة.

No: 1003462 رقم:

Date\ 23 Jan 2018 Valid duration\ Three Years

التاريخ /25/ جمادى الأولى 1439 مدة صلاحية الشهادة/ ثلاث سنوات

Appendix E: Princess Nourah University (PNU) Ethics Approval

Kingdom of Saudi Arabia
Ministry of Education
Princess Nourah Bint Abdulrahman University
(048)

المملكة العربية السعودية
وزارة التعليم
جامعة الأميرة نورة بنت عبد الرحمن
(٠٤٨)

Institutional Review Board

مجلس المراجعة المؤسسي

IRB Registration Number with KACST, KSA: H-01-R-059

January 9, 2018
IRB Log Number: 18-0010
Project Title: A Syntactic Analysis of Arabic Language Interference in Saudi College Students' Writing
Category of Approval: EXEMPT

Dear Dina Talal Alhajailan,

Thank you for submitting your proposal to the PNU Institutional Review Board. Your proposal was evaluated considering the national regulations that govern the protection of human subjects. The IRB has determined that your proposed project poses no more than minimal risk to the participants. Therefore, your proposal has been deemed ***EXEMPT*** from IRB review. Please note that this approval is from the research ethics perspective only. You will still need to get permission from the head of the department in PNU or an external institution to commence data collection.

Please note that the research must be conducted according to the proposal submitted to the PNU IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For ***any*** proposed changes in your research protocol, please submit a Request for Modification form to the PNU IRB. Please be aware that changes to the research protocol may prevent the research from qualifying for exempt review and require submission of a new IRB application or other materials to the PNU IRB. In addition, if an unexpected situation or adverse event happens during your investigation, please notify the PNU IRB as soon as possible. If notified, we will ask for a complete explanation of the event and your response.

Please be advised that regulations require that you submit a progress report on your research every 6 months. Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. You are also required to submit any manuscript resulting from this research for approval by IRB before submission to journals for publication.

We wish you well as you proceed with the study. Should you have additional questions or require clarification of the contents of this letter, please contact me.

Sincerely Yours,

Ebtisam AlMadi

جامعة الأميرة نورة بنت عبد الرحمن
مجلس المراجعة المؤسسي
Institutional Review Board (IRB) 09 JAN 2018

Dr. Ebtisam AlMadi
Chairman, Institutional Review Board (IRB)
Princess Nourah bin Abdulrahman University, Riyadh, KSA
Tel: + 966 11 824 0861
E-mail: irb@pnu.edu.sa

الرقم :
التاريخ : / / 143هـ

Appendix F: PNU Research Approvals

المملكة العربية السعودية
وزارة التعليم
جامعة الأميرة نورة بنت عبدالرحمن
(٠٤٨)
عمادة البحث العلمي

جامعة الأميرة نورة بنت عبدالرحمن
وكالة الجامعة للدراسات العليا والبحث العلمي

الرقم : ١٩٧٢١
التاريخ : ١٤٣٩/٤/٢٤هـ
الموضوع: بشأن تسهيل مهمة الباحثة دينا بنت طلال الحجيلان.

سعادة عميدة كلية اللغات. **حفظها الله.**

السلام عليكم ورحمة الله وبركاته، وبعد:

نفيد سعادتكم بأن الباحثة /دينا بنت طلال الحجيلان، طالبة دكتوراه في جامعة روهامبتون بمدينة لندن ببريطانيا تخصص لغويات . وبصدد إعداد بحث بعنوان (**تحليل البناء اللغوي الناتج عن تدخل اللغة العربية في تعلم الكتابة باللغة الإنجليزية لطلاب الكليات**)

نأمل من سعادتكم التكرم بتسهيل مهمة الباحثة أعلاه بالسماح لها بتطبيق أداة البحث المرفقة على معلمات اللغة الانجليزية وذلك حسب الانظمة المتبعة.

ولسعادتكم فائق الشكر وبالغ التقدير.

عميدة البحث العلمي

د. منال بنت عبدالعزيز الشدي.

بسم الله الرحمن الرحيم

سعادة الدكتورة/ عميدة كلية اللغات والترجمة حفظها الله

السلام عليكم ورحمة الله وبركاته

أفيد سعادتكم أنني مبتعثه للحصول على درجة الدكتوراه في مجال (لغويات اللغة الإنجليزية) في بريطانيا.

وسأقوم بتجميع المعلومات إستعدادا للبدء بإجراء البحث قريبا.

نأمل من سعادتكم الموافقة على الآتي:

١) تجميع إحصائيات عن الطالبات الدارسات بالكلية.

٢) تجميع نسخ من أوراق إجابات الطالبات في المستوى الثالث، مادة "قراءة متقدمة" لنهاية الفصل الثاني ٢٠١٧ بقسم اللغة الإنجليزية في كلية اللغات والترجمة (وأحيط سعادتكم أن أسماء الطالبات سيتم محوها ويستعاض عنها بأرقام خاصة ولن تستخدم الأوراق إلا لخدمة بحثي هذا فقط).

٣) السماح لي بتطبيق استبانة بنهاية الفصل الثاني ٢٠١٨ عن "أثر الأخطاء اللغوية الشائعة المبنية على تدخل اللغة الأولى في اللغة الثانية في استيعاب النص".

وذلك ليتسنى لي النظر فيها وتحليلها بغرض استخدامها في بحث الدكتوراه.

شاكرة لكم حسن تعاونكم

والله الموفق،،،

تجدون برفقه:

نسخة من خطاب تسهيل مهمة باحث من وكالة الجامعة للدراسات العليا والبحث العلمي.

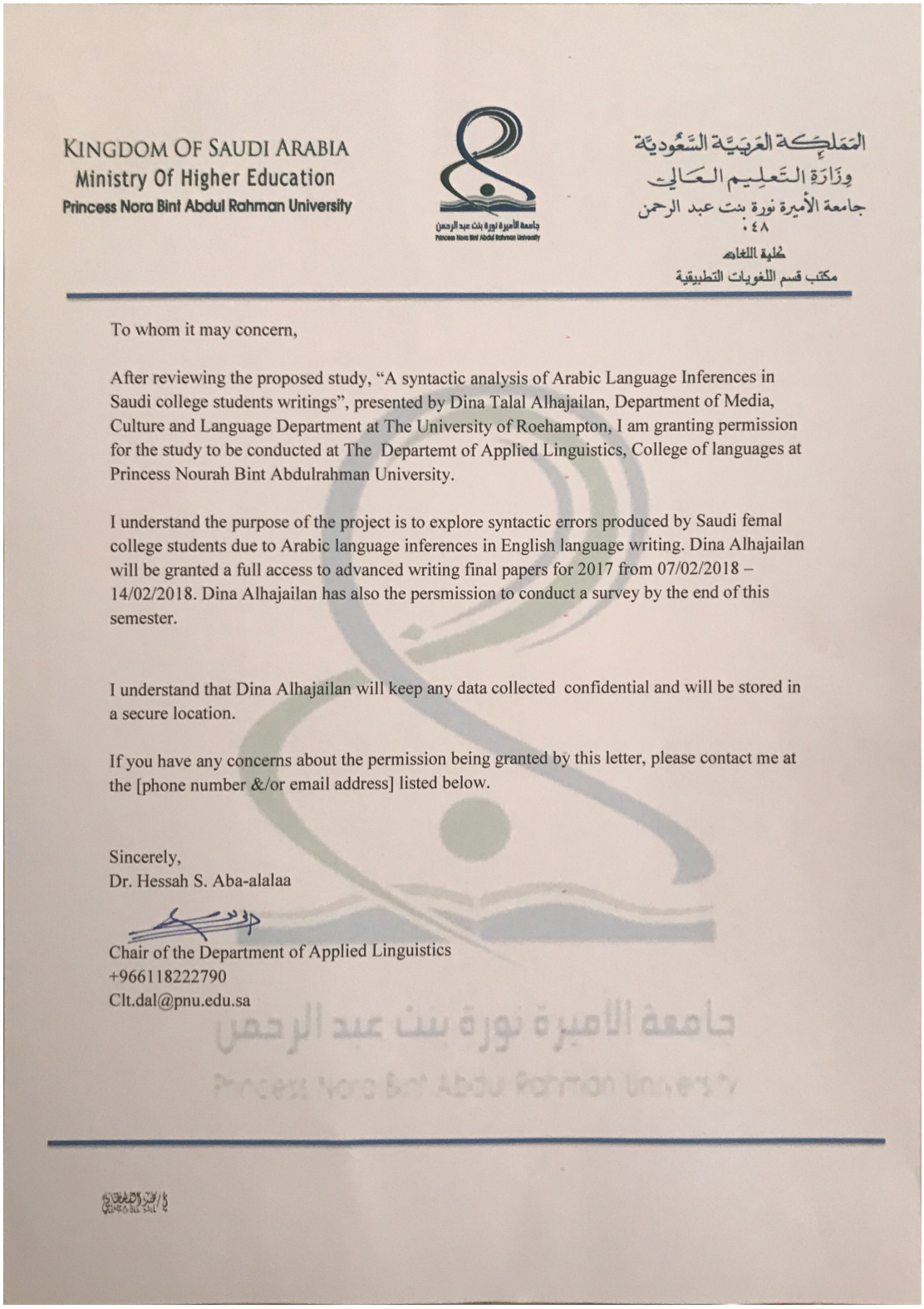
الباحثة: دينا بنت طلال الحجيلان

محاضر لغة إنجليزية بكلية اللغات و الترجمة

تمت الموافقة على تسهيل المهمة

٧/٢

المملكة العربية السعودية
وزارة التعليم
جامعة الأميرة نورة بنت عبدالرحمن
كلية اللغات



KINGDOM OF SAUDI ARABIA
Ministry Of Higher Education
Princess Nora Bint Abdul Rahman University

المَمْلَكَة العَرَبِيَّة السَّعُودِيَّة
وِزَارَة التَعلِيم العَالِي
جامعة الأميرة نورة بنت عبد الرحمن
كلية اللغات
مكتب قسم اللغويات التطبيقية

To whom it may concern,

After reviewing the proposed study, "A syntactic analysis of Arabic Language Inferences in Saudi college students writings", presented by Dina Talal Alhajailan, Department of Media, Culture and Language Department at The University of Roehampton, I am granting permission for the study to be conducted at The Departemt of Applied Linguistics, College of languages at Princess Nourah Bint Abdulrahman University.

I understand the purpose of the project is to explore syntactic errors produced by Saudi femal college students due to Arabic language inferences in English language writing. Dina Alhajailan will be granted a full access to advanced writing final papers for 2017 from 07/02/2018 – 14/02/2018. Dina Alhajailan has also the persmission to conduct a survey by the end of this semester.

I understand that Dina Alhajailan will keep any data collected confidential and will be stored in a secure location.

If you have any concerns about the permission being granted by this letter, please contact me at the [phone number &/or email address] listed below.

Sincerely,
Dr. Hessah S. Aba-alalaa

Chair of the Department of Applied Linguistics
+966118222790
Clt.dal@pnu.edu.sa

Appendix G: PNU Advanced Writing Course Sample Selection

KINGDOM OF SAUDI ARABIA
Ministry Of Education
Princess Nourah bint Abdulrahman University
(048)

المَمْلَكَة العَرَبِيَّة السُّعُودِيَّة
وِزَارَة التَّعْلِيم
جَامِعَة الأَمِيرَة نُورَة بِنْت عَبْدالرَّحْمَن
(٠٤٨)

إلى من يهمه الأمر **سلمه الله**

السلام عليكم ورحمة الله وبركاته، وبعد:

بناء على طلب المبتعثة /دينا الحجيلان لمتطلبات البحث عن مادة الكتابة المتقدمة (إنجل ٢٣١د) للعام الجامعي ٢٠١٧ فيما يلي الإحصائيات المطلوبة للطالبات:

عدد الطالبات المنتظمات في كلية اللغات والترجمة (قسم اللغة الانجليزية)	2499
عدد الطالبات المسجلات في مادة الكتابة المتقدمة	369
عدد الطالبات المنسحبات	13
عدد الطالبات اللاتي حضرن اختبار مادة الكتابة المتقدمة	356
عدد الطالبات اللاتي تم اختيارهن عشوائياً	178

والله الموفق

المملكة العربية السعودية
وزارة التعليم
جامعة الأميرة نورة بنت عبدالرحمن
كلية اللغات

عميدة كلية اللغات
د. ابتسام بنت صالح العثمان

الرقم: ..... التاريخ: .../.../... ١٤هـ المشفوعات: .....

Appendix H: A Sample of the Error Analysis Classification Tool

1. Below is an *earlier version* of the error analysis classification tool. For the purposes of illustration, three essays out of the 178 were chosen: Essays 84, 151, and 176; the first four rows of each essay are presented below.

Essay # (old #)	Approx. # of Errors	Notes	Reference Number	Errors	Surface Structure Error Taxonomies (SSTs)	Word Class	Comprehensibility	Error Position (Embedded Position)	Elements Involved in Error	Error Description (1= Interlanguage and 2= Intralanguage)	Comments	Further Comments (Revised)	Frequent error types
84			84-1	Nowadays smart phones have become one of the best technology( ) we used	Omission of plural marking	N-C		3	"one of the" implies this should be plural	1	The singular form would be used in Arabic. The word "technology" is uncountable in Arabic: تكنولوجيا	This follows the pattern of using a singular N following a superlative: أفضل تكنولوجيا	Q-Num
Essay Word Count: 443			84-2	Smart phones has many penfits( ) benefits] in our life( ), for example we can use it for communication with other people by texting messages or calling them.	Omission of plural marking	N-C		3	"many" implies this should be plural	2	The plural form would be used in Arabic: "فوائد". The L2 learner used "فائدة" "phones "earlier in the sentence.	combined with a quantifier (i.e. quantifier many). A pattern?	Q-Num
			84-3	Smart phones has many penfit( ) benefits] in our life( ), for example we can use it for communication with other people by texting messages or calling them.	Omission of plural marking	N-C		3	Each individual in the reference set of "our" has their own life, so would make more sense to be plural	1	The singular form would be used in Arabic. The word "life" is uncountable in Arabic might be expressed through attching a pronoun to the word "life " حياة	Follows the pattern of having a singular N (where a plural is required)in a possessive context:حياته + the word "life"is uncountable in Arabic	PI-Poss
			84-4	Smart phones has many penfit( ) benefits] in our life( ), for example we can use it for communication with other people by texting messages or calling them.	Substitution for "them"	Pro-Pers		3	Needs to be plural to agree with "smart phones"	1	using هو/هي/هم instead of هما inanimate "it"to replace them", "their"and "they"	نستخدم هو/هي/هم using inanimate "it"to replace them", "their"and "they"	Agr-Pro
151			151-1	Technology is become a part of our live( ).	Omission of plural marking	N-C		4 (3)	Each individual among "our" has their own life, so plural marker is required.	2	"life" Should be used it means حياة while "live" has a different meaning حيّ	This is an intralanguage error. The L2 learner seems to be confused	PI-Poss
Essay Word Count: 309			151-2	I came up with two solution( ) I hope to solve this problem.	Omission of plural marking	N-C		3	Numeral "two" implies this should be plural	1	the base in Arabic can be a singular and the number "two"( ) would be attached to it	Follows the pattern of having a N combined with a number (i.e. two)	Numeral-Num
			151-3	teenagers now become addicted to phones for example( ) iPhone[s].	Omission of definite article.	Art-Def		1B	"iPhone" conventionally takes a definite article	2	A definite article is used in Arabic الـ/ال	Unlike English the definite article الـ...ة is used more frequently in Arabic. One of the reasons is that nouns referring to abstract things, whole collectives and generic terms, generally take the definite article	Lex
			151-4	Every person in this plan[e]t has an iPhone [...]	Substitution of "in" for "on"	Prep		4	"on" is more semantically appropriate	1	In this example both "in" and "on" can be used in Arabic, "on"، على على الفكر، "in" في فكر Depending on intended meaning in	In Arabic, preposition "in" is preferrably used (in that specific context) instead of "on"	Lex
176			176-1	Nowaday, teenagers are addicted for using(a) smart phones.	Insertion of indefinite article.	Art-Indef		1B	Indefinite article incompatible with plural	2	a definite article is required in that position/ slot in Arabic استخدام الهواتف	The L2 learner overgeneralized the use of indefinite Article a. The reason might	Indef-PI
Essay Word Count: 334			176-2	They use it for many (of) reasons, such as chatting, playing online and sharing their opinion( ) in social networks.	Substitution of "it" for "them" (the antecedent of the pronoun is "smart phones", so needs to be plural)	N-C		3	Needs to be plural to agree with antecedent "smart phones"	1	Using inanimate(هو/هي) it"to replace the plural" pronouns "they "their"for "them"	Arabic distinguishes between human and non-human plurals. Non-human plurals are grammatically feminine singular (Equivalent to English pronoun it)	Agr-Pro
			176-3	They use it for many (of)reasons, such as chatting, playing online and sharing their opinion( ) in social networks.	Insertion of preposition.	Prep		1A	"many" would not take "of" when used with indefinite NP	1	a prepositioncan be used in that position/ slot in Arabic: يستخدم هو/هي/هم	Most of the insertions were because those prepositions are required in the Arabic	Lex
			176-4	They use it for many (of) reasons, such as chatting, playing online and sharing their opinion( ) in social networks.	Omission of plural marking.	N-C		3	Different individuals among "they" have different opinions, so would make more sense as plural	2	The plural would be also used in Arabic وآرائهم	having a singular N (where a plural is required in English) following a possessive pronoun	PI-Poss

2. Below are samples from a more *advanced version* of the error analysis classification tool. This version only includes the interlanguage errors (the intralanguage errors having previously been moved into another spreadsheet), which were further organised, preceding roughly from more general to more specific attributes, illustrating the most common error types found in the data. Linguistic category (e.g. Article, Pronoun, etc.) → Subcategory (e.g. Definite Article, Personal Pronoun, etc.) → SSTs (addition, deletion, etc.) → Specific SST (e.g. "omission of definite article," "insertion of plural marking," etc.) → Error Position (e.g. 1A: pre-determiner, 3: head, etc.) → Elements involved in Error (A brief description of the error and which surrounding words are involved) → Error Type (groupings together on the basis why they were incorrect). See Chapter 4 for more details.

   For SSTs, the classification tool used a different set of terminology than from that used in the text: *insertion* in the spreadsheet is equivalent to *addition* in the text, *omission* to *deletion*, *substitution* to *misselection*,and *word order* to *misordering*.

Notes	Reference Number	Errors	Major Linguistic Category	Frequency of Major Linguistic Category	Linguistic Sub-Category	Frequency of Linguistic Sub-Category	Major SST Category	Frequency of Major SST Category	Surface Structure Error Taxonomies (SSTs)	Frequency of SST	Error Position (Embedded Position)	Elements Involved in Error	Error type	Frequency of Error type	Major Category of Preceding Word	Major Category of Following Word	Incomprehensibility	Error Description (1= Interlanguage and 2= Intralanguage)	Comments	Further Comments (Revised)
OK	45-4	Teachers can take ( ) number of actions to put a limit for the problem.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Possibly lexical idiosyncracy, but "number" definitely needs "a"	Lex	235	Verb	Noun		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "ania" articles are typically omitted. عدد من الإجراءات / خطوات من الاجراءات	
OK	17-2	Getting into ( ) major without any well information about it is a big problem for (the) students because they will suffer from time and money losses.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun "major" needs an overt determiner	Sg-Count-Det	236	Preposition	Noun		1	In Arabic, there is no indefinite article.	Indefinite articles does not exist in Arabic
OK	19-26	Because they are ( ) teenager, they have something change it and the thinker (it) will be different in the past.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun "teenager" needs an overt determiner	Sg-Count-Det	236	Verb	Noun		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "ania" articles are omitted.	
OK	5-37	We can make easily ( ) solution if we make good ways with teenagers like when all mother( ) look at this problem she should solutiuon this problem.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun needs a determiner	Sg-Count-Det	236	Adverb	Noun		1	An indefinite article does not exist in Arabic. لربما حل	
OK	5-14	The overuse of smart phone( ) and texting among teenagers is seen as ( ) problem that leason( ) face-to-face communications [and] is ( ) important problem we should solution in ( ) near time because if we don't solution this problem we make our country bad in communication.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun needs a determiner	Sg-Count-Det	236	Conjunction	Noun		1	Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "an/a" articles are omitted in many of these examples.	indefinite articles do not exist in Arabic
OK	5-35	this ( ) big problem because if we [chatting] of course we have ( ) problem in the main ideas.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun needs a determiner	Sg-Count-Det	236	Pronoun	Adjective		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "an/a" articles are omitted in many of these examples.	indefinite article "a" does not exist in Arabic.
OK	5-16	The overuse of smart phone( ) and texting among teenagers is seen as ( ) problem that leason( ) face-to-face communications [and] is *( ) important problem we should solution in ( ) near time because if we don't solution this problem we make our country bad in communication.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun needs a determiner	Sg-Count-Det	236	Verb	Adjective		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "an/a" articles are omitted in many of these examples.	the omission of indefinite article here could be in the case of slang use of arabic ....no article is required in that context
OK	5-36	this ( ) big problem because if we [chatting] of course we have ( ) problem in the main ideas.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun needs a determiner	Sg-Count-Det	236	Verb	Noun		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "an/a" articles are omitted in many of these examples.	the omission of indefinite article here could be in the case of slang use of arabic ....no article is required in that context
OK	19-15	This is ( ) strongest reason they still( ) small age.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun needs an overt determiner	Sg-Count-Det	236	Adverb	Adjective		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "ania" articles are omitted. صغر سنها	indefinite article "a" does not exist in Arabic.
OK	10-9	That is( ) problem because we start losing the speak language.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable noun requires determiner	Sg-Count-Det	236	Verb	Noun		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "ania" articles are omitted. مشكلة	
Corrected error position	2-4	First of all, studying is not ( ) easy thing you can do (it) quickly.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	Singular countable NP needs a determiner	Sg-Count-Det	236	Negation	Adjective		1	In Arabic sentences have definite articles only attached to the noun. Otherwise it is considered indefinte without insertions of any articles. Therefore "ania" articles are omitted in many of these examples. ليس سهلا	omission of indefinite article to follow the N-adj agreement in Arabic
Corrected error type	104-10	For example, give them zero for the work that they copy (it) and make them work( ) couple of hours too.	Article	991	Art-Indef	319	Omission	957	Omission of indefinite article	238	1B	singular countable NP needs a determiner	Sg-Count-Det		Verb	Noun		1	Arabic does not require the use of an article in	indefinite article "a" does not exist in

The above represents how the highlighted errors under study are classified from general to specific. For instance, in error 17-2 *"Getting into ( ) major [=subject] without any well information about it"*: *Article* as the Linguistic Category, *ART-INDEF* as the Linguistic Sub-Catgeory, *Deletion [Omission]* as the SST, *Deletion of indefinite article "a"* as the Specific SST, *Singular countable NP needs an overt determiner* as the Element Involved in Error, and finally *SG-CNT-DET* (i.e. Absence of determiner on singular countable NP) as the Error Type.

of	Notes	Reference Number	Errors	Major Linguistic Category	Frequency of Major Linguistic Category	Linguistic Sub-Category	Frequency of Linguistic Sub-Category	Major SST Category	Frequency of Major SST Category	Surface Structure Error Taxonomies (SSTs)	Frequency of SST	Error Position (Embedded Position)	Elements Involved in Error	Error type	Frequency of Error type	Major Category of Preceding Word	Major Category of Following Word	Incomprehensibility	Error Description (1= Interlanguage and 2= Intralanguage)	Comments	Further Comments (Revised)
	OK	133-29	So, we have to let (the) students read more and get this benefits.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "benefits"	AgrPro	156	Verb	Noun		1	demonstartives "this"and "these"have the same equivalent in Arabic	
	OK	66-1	This days there is a lot of university students ( ) have a hard time (to) organizing their time between their family( ) and their university( ).	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "days"	AgrPro	156	#	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	132-2	Everyone have a smart phone(s) in this days and stay all day with the phone specially (the) teenagers spend all the time and sometimes doesn't have time to stay with (the) family and talk(ing) with them and don't want to seeing anyone.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "days"	AgrPro	156	Preposition	Noun		1	Singular form is used in Arabic هذه الايام in singular in Arabic.	its proceeded by demonstartive "these"… "this"and "these"have the same equivalent in Arabic
	OK	92-19	Moreover, this degrees can help students when they are work after they finished their education.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "degrees"	AgrPro	156	Adverb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	92-21	Because students will be very excited to work hard and get this degrees.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "degrees"	AgrPro	156	Verb	Noun		1	In Arabic THIS or THESE have the same equivalent in Arabic هذه الدرجات	
	OK	92-23	Strongly, students who plaigiarism will scared because if they did not take this degrees, their future work will damage.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "degrees"	AgrPro	156	Verb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	92-14	The teachers can put this essays in this websites, and know if those students take it from the internet or they do not.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "essays"	AgrPro	156	Verb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	151-22	So, (the) parents must go through this issues look forward	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "issues"	AgrPro	156	Preposition	Noun		1	THIS or THESE will give the same meaning هذه مسئل	
	OK	30-41	And men can't inter this places.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "places"	AgrPro	156	Verb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الاماكن	
	OK	30-42	I like this places in coffee shop( ).	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "places"	AgrPro	156	Verb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الاماكن	
	Corrected error position	84-16	(The) parents should try to solve this problems before this problems will be (a) big problems to (the) child and they they can't solve it easily.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "problems"	AgrPro	156	Preposition	Noun		1	THIS or THESE will give the same meaning هذه المشاكل	
	Corrected error position	84-15	(The) parents should try to solve this problems before this problems will be (a) big problems to (the) child and they they can't solve it easily.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "problems"	AgrPro	156	Verb	Noun		1	THIS or THESE will give the same meaning هذه المشاكل	
	OK	37-4	Some ( ) this problems should solved by university( ), and some of them solved by students.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "problems"	AgrPro	156	Quantifier	Noun		1	these and this have the same equivalent in Arabic, specifically in this context; when referring to N "problems"as a whole	In Arabic هذه المشاكل THIS or THESE will give the same meaning
	OK	52-19	The students fixed many problem( ) in our life( ) such as (the) exams, homeworks, projects, presentations and assignments all of those we should to make it in (a) specific time( ) we should to know who to face(this) problems.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "problems"	AgrPro	156	Verb	Noun		1	THIS or THESE have the same equivalent in Arabic specifically in that position هذه المشاكل	demonstrative pronouns "this"and "these"have the same equivalent in Arabic
	OK	21-10	Should for students follow this solutions.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "solutions"	AgrPro	156	Verb	Noun		1	THIS or THESE will give the same meaning هذه الحول ل	
	OK	171-19	Finally, I hope this solutions help to solve this problem and I think when the student organized her time you can do anything her wants.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "solutions"	AgrPro	156	Verb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	19-46	This steps is perfect and interesting.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "steps"	AgrPro	156	#	Noun		1	THIS or THESE have the same equivalent in Arabic هذه الخطوات	
	OK	52-32	When we do this solutions we can stay with family and we can solving all this problem( ).	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "these"	AgrPro	156	Verb	Noun		1	THIS or THESE will give the same meaning هذه المشاكل	demonstrative pronouns "this"and "these"have the same equivalent in Arabic هذه الحول ل
	OK	92-17	Actually, this websites will be very helpful.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "websites"	AgrPro	156	Adverb	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	92-15	The teachers can put this essays in this websites, and know if those students take it from the internet or they do not.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with "websites"	AgrPro	156	Preposition	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	OK	19-4	Everyone loved this years.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Needs to be plural to agree with noun "years"	AgrPro	156	Verb	Noun		1	THIS or THESE will give the same meaning تلك السنين	
	OK	47-11	In ( ) mall, I can find all this things in (a) different shop( ) (stor) in the mall.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Pronoun needs to be plural to agree with "things"	AgrPro	156	Quantifier	Noun		1	it was inserted to preplace هذا اسم إشارة	
	OK	84-5	You can search from your smart phone in any time and in any website you want and of course there is more than this two benefits.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	1B	Should be plural to agree with "two benefits"	AgrPro	156	Conjunction	Quantifier		1	THIS or THESE will give the same meaning هاتين المشكلتين	
	Corrected error position	126-4	I think it is the big problem in this days.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	4 (1B)	Needs to be plural to agree with "days"	AgrPro	156	Preposition	Noun		1	it was inserted to preplace هذا اسم إشارة "هذه الايام"	
	Corrected error position	92-28	In addition, give students who do not plaigiarism at all degrees to posh and prove them how this habits are negative.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	4 (1B)	Needs to be plural to agree with "habits"	AgrPro	156	Pronoun	Noun		1	In Arabic THIS or THESE will give the same meaning هذه الحول ل	
	Corrected error position	134-9	For example, if you want to give someone a gift, you can give him a box of accessories from this stories.	Pronoun	612	Pro-Dem	38	Substitution	505	Substitution of "this" for "these"	34	4 (1B)	Needs to be plural to agree with "stores"	AgrPro	156	Preposition	Noun		1	THIS or THESE will give the same meaning هذه القصص	
																				THIS or هذه الاشياء	

Above is another example that represents how the highlighted errors under study are classified from general to specific. For instance, in error 66-1:*"This days there is a lot of university students"*) *Pronoun* as the Linguistic Category, *PRO-DEM* as the Linguistic Sub-Catgeory, *Misselection [Substitution]* as the SST, *Misselection of "this" for "these"* as the Specific SST, *Needs to be plural to agree with the following noun* as the Element Involved in Error, and finally *AGR-PRO* (i.e. errors that are ungrammatical in English due to disagreement between a pronoun and its antecedent) as the Error Type.

Appendix I: List of Error Pattern Codes

In order to find common error patterns in the data, the error categories were assigned codes based on what they have in common. The common error types in the data were as follows:

ADJ: Word is being used in an adjectival position and should be an adjective

ADJ-NN: Adjective missing following noun (or pronoun) to modify

ADJ-PL: Plural marking on adjective

ADV-ADJ: Adverb missing following adjective to modify

AGR-PRON: Incorrect pronoun-antecedent agreement

CAS: Incorrect case (substitution of subject/nominative for object/accusative form or vice-versa)

CMP-NN: Word needs to be a noun to be used as part of a noun-noun compound

CMP-PL: Incorrect placement of plural marking on left hand member of N-N compound

CNGR: Lack of congruence (generally in person or number) with rest of discourse

CONJ-CAT: Conjunction needs to join phrases of like category

DEF-SEM: Omission of definite article on NP that is semantically unique (for reasons other than other error categories: lexical semantics, world-knowledge, information in discourse; generally not purely grammatical reasons dictating definiteness)

DEF-PRSP: Use of definite article in absence of discourse presupposition of uniqueness

GNRC-PL: Noun used in a generic sense and should be plural

INSR-PREP: Insertion of preposition where not needed (often involving possible idiosyncrasies of quantifiers, etc., that it's used with)

LEX: Semantics or other idiosyncratic properties of individual lexical item not appropriate

MAS-ART: Incorrect use of article with mass noun

MAS-PL: Incorrect use of plural marking on mass noun

NP-H: Noun phrase with head noun missing

NMB-NUM: Grammatical number incompatible with numeral words

NMB-SEM: Use of semantically implausible/non-presupposed grammatical number

OM-PREP: Omission of preposition in position requiring it

OM-REL-PRON: Omission of relative or wh-pronoun needed to introduce clause

ORD-DEF: Omission of definite article with ordinal number that implies definiteness

PL-POSS: Possessed noun designating things that are separately possessed by each referent of a plural possessor should itself be plural (also some related things not involving possession per se)

POSSR: Noun being used as possessor but not in possessive form as needed

POSS-NP: Possessive word missing NP for the possessed thing

QNT-DEF: (In)Definiteness of NP incompatible with requirements of quantifier

QNT-MAS-CNT: Mass/count status of noun incompatible with requirements of quantifier

QNT-NMB: Grammatical number of noun incompatible with requirements of quantifier

QNT-PL: Incorrect use of plural marking on quantifier

RED-NN: Insertion of redundant noun

RED-PRON: Use of redundant pronoun

REP: Repetition of words of same/similar categories (and where they can't coherently be interpreted as conjoined, a list, a compound, etc.)

REFL: Error involving proper use of reflexive pronoun

SG-CNT-DET: Absence of determiner on singular countable NP

STY: miscellaneous stylistic problems; typically use of awkward or archaic constructions

SUP-DEF: Absence of definite article with superlative adjective, implying uniqueness

V-ADJ: Absence of adjective required by verb

V-AGR: Subject-verb disagreement

V-OBJ: Omission of direct or indirect object NP required by verb

V-SBJ: Omission of subject NP required by verb (or use of word in wrong form to serve as subject)

WO: Word order

Appendix J: Revised Pilot Questionnaire

University of Roehampton London Informed Consent Document

Title of Study: A Syntactic Analysis of Arabic Language Interference in Saudi College Students' Writing.

Researcher Details: Dina Talal Alhajailan
Department of Media, Culture and Language Department
Southlands College, University of Roehampton
80 Roehampton Lane, London SW15 5SL, UK
Contact Email: alhajaid@roehampton.ac.uk
Telephone: Uk # +44 (0)7575757000
Saudi # +966 (0) 554498528

Please take your time in deciding, whether or not you would like to participate in this research study. Please do not hesitate to ask any question at any time.

INTRODUCTION
The purpose of this study is to investigate errors in Nominal Constructions produced by Saudi female college students in writing classes at Princess Nourah University (PNU, Riyadh). You are being invited to participate because you are an EFL/ ESL English language instructor. It should take about 20 minutes to complete the questionnaire.

DESCRIPTION OF PROCEDURES
If you agree to participate: first, please look at the (in)comprehensibility scale and read carefully what each rating represents. Secondly, indicate with the appropriate number on the scale of 1 (fully comprehensible) to 4 (incomprehensible without further information). Optional space is provided next to each example for you to explain why such an error occurred.

RISKS
There should be no risks.
This questionnaire is designed to record your professional judgments, not to evaluate them.

BENEFITS
The study is designed to contribute to improving English learning and teaching, especially in the Arab world.

COSTS AND COMPENSATION
There are no costs and no compensation for participating in this study.

PARTICIPANTS' RIGHTS
You have the complete right to refuse to participate or withdrawal from the study at anytime. (Please note, however, that the data may still be used in a collated form). It will not result in any penalty. You may omit any question that you cannot or do not wish to answer.

CONFIDENTIALITY
We assure all participants that when a participant's response is cited in a presentation or publication format, the participant's name will not be disclosed.

QUESTIONS OR PROBLEMS

University of Roehampton London

Please note: if you have a concern about any aspect of your participation or any other queries please raise this with the investigator or the Director of Studies. If you would like to contact an independent party please contact the Head of Department.

Director of Studies Contact Details:
Dr. Eva Eppler
Department of Media, Culture & Language
Southlands College, University of Roehampton
80 Roehampton Lane, London SW15 5SL, UK
Email: e.eppler@roehampton.ac.uk
Tel: +44 (0) 20 8392 3791

Head of Department Contact Details:
Dr. Anna Gough-Yates
Department of Media, Culture & Language
Southlands College, University of Roehampton
80 Roehampton Lane, London SW15 5SL, UK
Email: anna.gough-yates@roehampton.ac.uk
Tel: +44 (0) 20 8392 3420

Consent Statement:
I agree to take part in this research, and am aware that I am free to withdraw at any point without giving a reason, although if I do so I understand that my data might still be used in a collated form. I understand that the information I provide will be treated in confidence by the investigator and that my identity will be protected in the publication of any findings, and that data will be collected and processed in accordance with the Data Protection Act 1998 and with the University's Data Protection Policy.

Signature:----------

Date:----------

University of Roehampton London

Pilot Questionnaire on "A Syntactic Analysis of Arabic Language Interference in Saudi College Students' Writing"

Please tick (/) where applicable.

A. General information:

(1) What is your gender? Male □ Female □

(2) What is your highest qualification?

Bachelor's □ Master's □ Doctorate □ Other □

(3) How long is your experience in teaching ESL/ EFL?

First year □ 2-5 years □ More than 5 years □

(4) What is your mother tongue? ……..

B. If you agree to participate, only this questionnaire is needed: there is no further commitment.

First:

Please look at the guidelines for the comprehensibility scale below and read carefully what each rating represents.

1	Very Comprehensible	The meaning is entirely clear, and can be understood without effort.
2	Comprehensible	The meaning can be understood with a little effort.
3	Almost incomprehensible	The meaning can be understood only with considerable effort.
4	Incomprehensible	The meaning cannot be understood without additional information.

Second:

The examples in the questionnaire are collected from Arab adult learners' writing. Highlighted in red are the linguistic errors under study; kindly disregard any other errors in the given texts.

( ) Red brackets indicate errors of

- insertion (an item is given where it does not belong: see error number 1 on the next page)
- omission (a required item is not given: see error number 2 on the next page).

Errors with no brackets indicate other incorrect usage: see error number 3 on the next page.

You will **not** be asked to judge whether the given constructions are correct, but instead to rate your judgment of how comprehensible the text is. If necessary, use the reference number of each example to locate the original context (Attached to the questionnaire, from pages 6-14).

A comments column is provided to allow you to add any related comments to each example. Your comments will be much appreciated.

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For example:

Error number	Contexts	RN (page-paragraph-line)	1	2	3	4	Comments
1	"In conclusion, all problems in (the) life has (a) solutions.	3-2-7					
2	"They have ( ) new collection every week."	4-2-6					
3	Some ( ) this problems should solved by university( ), and some of them solved by students.	5-1-3					

In the examples above, highlighted in red (i.e. incorrectly inserted "(The)", incorrectly omitted "( )" and incorrectly used "this" are the errors under study.

In error #1, the brackets around "The" indicate that it is an error of insertion which is non-obligatory to the surrounding context.

In error #2, the brackets indicate that it is an error of omission of an item which is obligatory to the surrounding context.

In error #3, where there are no brackets, this indicates an incorrect use of an element in relation to the surrounding context (i.e. Substitution of "this" for "these").

Each error is labeled with a reference number. For example, in error #3 above, the reference number is 5-1-3; this means that it is in page number 5, located in the first paragraph, line number 3. If necessary, you can use the reference number to refer back to the original context of each error.

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Based on the above instructions, please complete the following:

Number	Contexts	RN (page-paragraph - line)	1	2	3	4	Comments
1	"I am totally with that (the) trust is such an important things in a friendship life."	**7- 2- 1**					
2	"…I am very sure that it will end the problem of (the) struggling from times with families and studies"	**7-1-4**					
3	"Because that help to effect in ( ) good way"	**8-1-2**					
4	"(The) time is important in our life( )."	**8-1-1**					
5	"The government should also find ( ) solution for it."	**9-2-2**					
6	"This is ( ) strongest reason they still small age"	**9-2-1**					
7	"So I would like from every parent(s) put some rules to protect this generation from this problem"	**10-2-4**					
8	"So, how are going to talk with children about overusing of phones and give them advice(s) about communicating if the parents are.."	**10-2-9**					

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9	"We can make easily solution if we make good ways with teenagers like when all mother( ) look at this problem she should solutiuon this problem."	**11-1-2**					
10	"They want study and their family want some of time from them but this proble [=probably] made a difficult from it and they cannot balancing between their ( )."	**11-2-3**					
11	"I came up with two solution( ) I hope to solve this problem."	**12-1-5**					
12	"Then, they are studying all of their time(s)."	**11-1-6**					

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Original contexts of each Error

Error 1 (located in paragraph 2, line 1):

Why The Trust is Important in a Friendship.

~~Why The Teenager Should Not Have Girls/Boys~~

The friendship is the most beatiful relationship in the person life. During this time, you will enjoy every single thing but not alone, it will be sharing with your bestfriend whom you love and pleased of having him/her in your life. But there is some important things that they should pay attention to them when you trying to find someone to be your friend to you have to look for the appropriate person whom you can trust, In this essay This essay will explain why trust is important in the a friendship for a few reasons.

I am totally with that the trust is such an important things in a friendship life. First, if you have a friend that you can not trust your friendship will be without any meanning. Because if you cannot trust them you won't tell them any of your secrets or what bothering you to them. For example when you feel depressed about something and you have that bestfriend But you cannot tell what inside you because you can not trust him/her of keeping your secerts.

Error 2 (located in paragraph 1, line 4):

Arguing For The Better

I see that create a day off in your schdule must be affective. I strongly suggest this solution for every body, and I am very sure that it will end the problem of the struggling from times with families and studies.

To conclude Conclusion

Managing your time and adjusting it are a magic solution. If you have the ability of managing that means you will have not suffered from difficulties between time for your family and for your workes.

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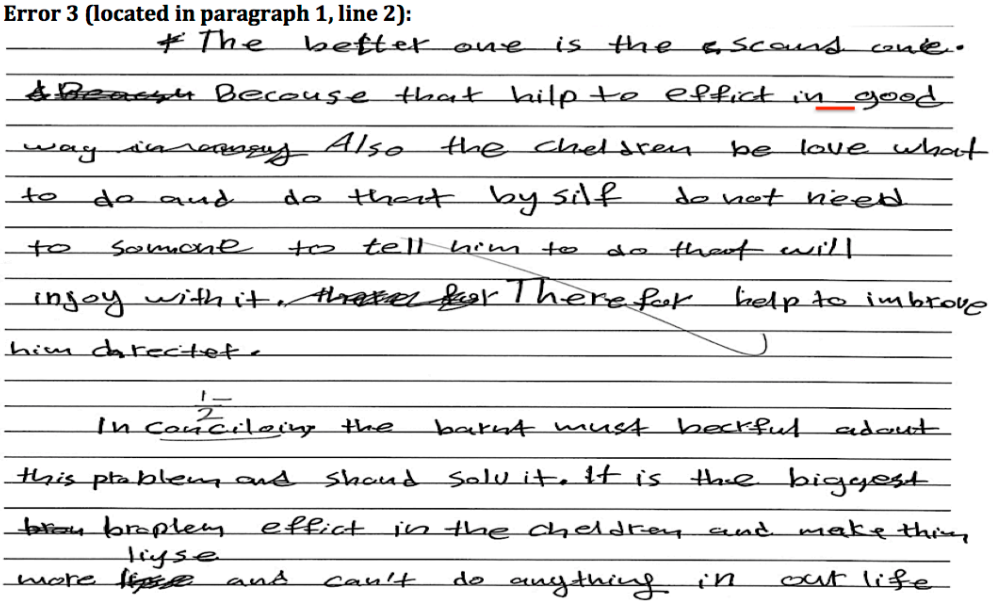
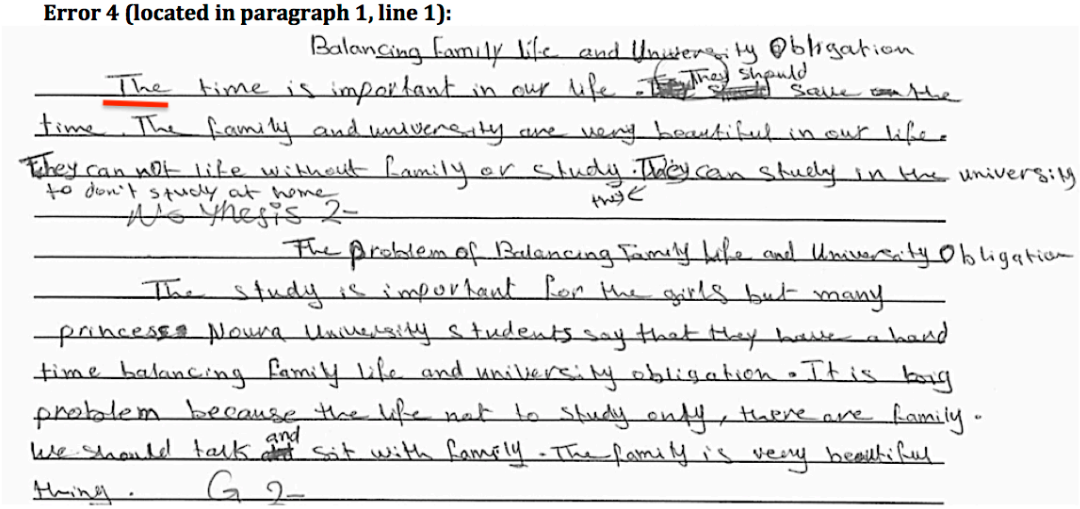
Error 3 (located in paragraph 1, line 2):



Error 4 (located in paragraph 1, line 1):



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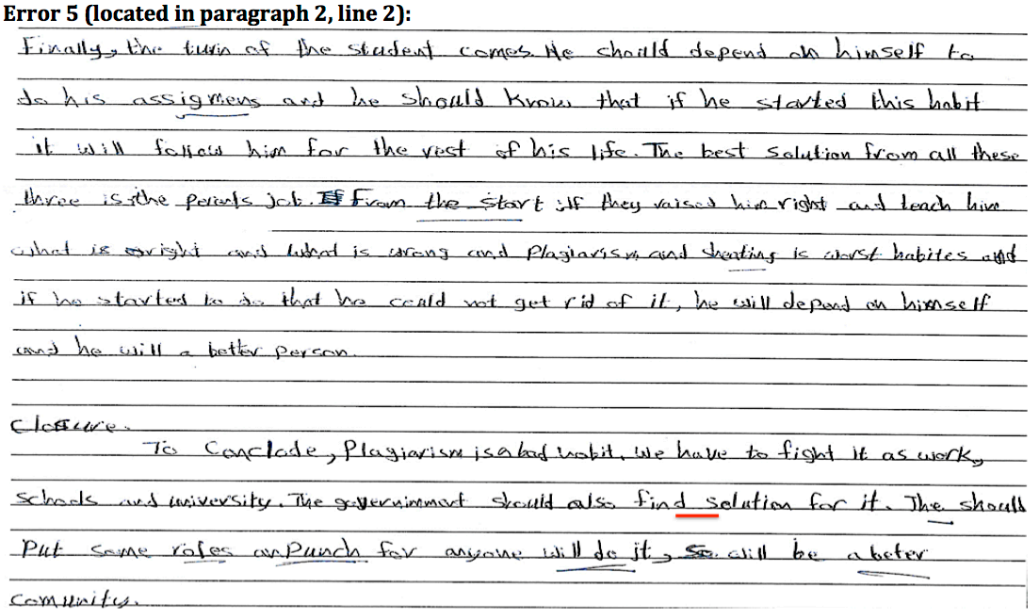
Error 5 (located in paragraph 2, line 2):

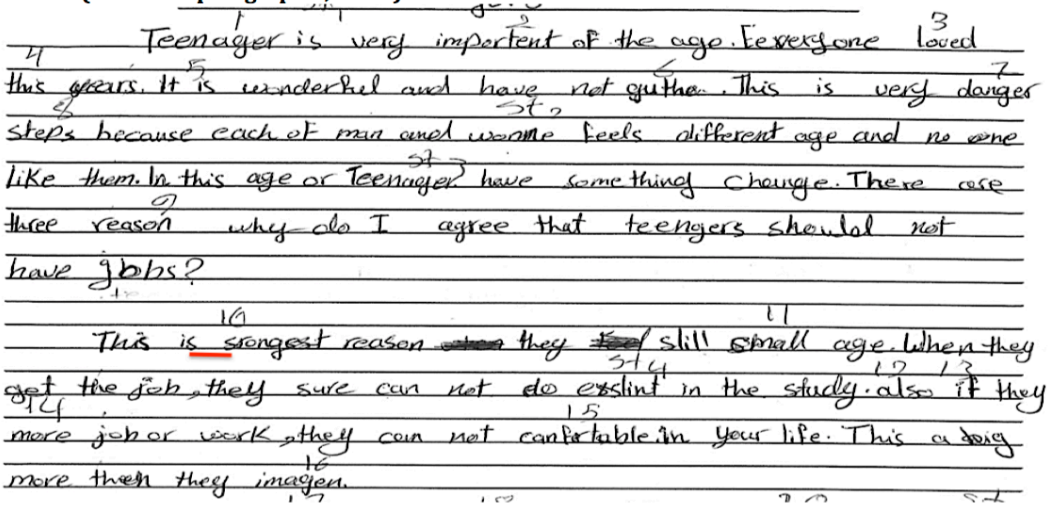


Finally, the turn of the student comes. He should depend on himself to do his assignments and he should know that if he started this habit it will follows him for the rest of his life. The best solution from all these three is the parents job. From the start if they raised him right and teach him what is wright and what is wrong and Plagiarism and cheating is worst habites and if he started to do that he could not get rid of it, he will depend on himself and he will a better person.

Clossure.

To Conclude, Plagiarism is a bad habit, we have to fight it as work, schools and university. The government should also find solution for it. The should Put some rules on Punish for anyone will do it, it will be a beter comunity.

Error 6 (located in paragraph 2, line 1):



Teenager is very important of the age. Everyone loved this years. It is wonderful and have not guilt. This is very danger steps because each of man and woman feels different age and no one like them. In this age or Teenager have something change. There are three reason why do I agree that teengers should not have jobs?

This is strongest reason they still small age. When they get the job, they sure can not do esslint in the study. also if they more job or work, they can not confortable in your life. This a thing more them they imagen.

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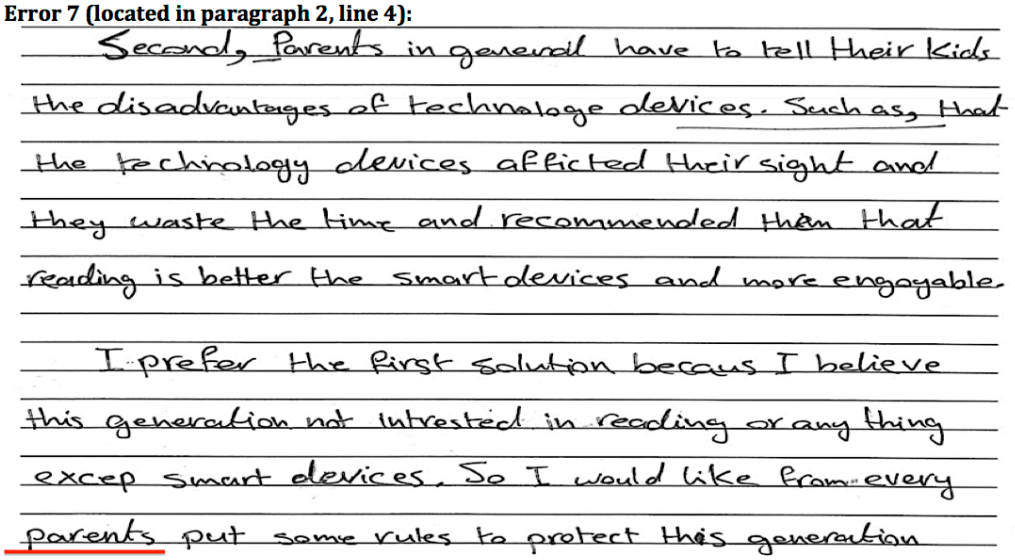
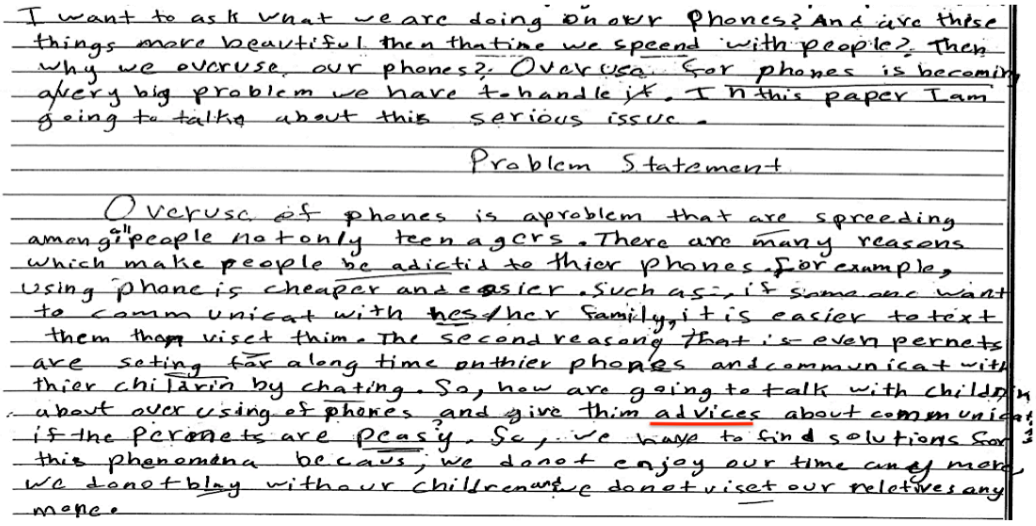
Error 7 (located in paragraph 2, line 4):


Second, Parents in generall have to tell their kids the disadvantages of technologe devices. Such as, that the technology devices afficted their sight and they waste the time and recommended them that reading is better the smart devices and more engoyable.

I prefer the first solution becaus I believe this generation not intrested in reading or any thing excep smart devices. So I would like from every parents put some rules to protect this generation

Error 8 (located in paragraph 2, line 9):


I want to ask what we are doing on our phones? And are these things more beautiful then the time we speend with people? Then why we overuse our phones? Overusa for phones is becoming a very big problem we have to handle it. In this paper I am going to talking about this serious issue.

Problem Statement

Overusa of phones is aproblem that are spreeding among people not only teenagers. There are many reasons which make people be adicted to thier phones. For example, using phone is cheaper and easier. Such as, if someone want to communicat with hes/her family, it is easier to text them than viset thim. The second reasong that is even pernets are seting far along time onthier phones and communicat with thier chilarin by chating. So, how are going to talk with childr about over using of phones and give thim advices about communic if the pernets are peasy. So, we have to find solutions for this phenomena becaus, we donot enjoy our time any more we donot play with our children we donot viset our reletives any mone.

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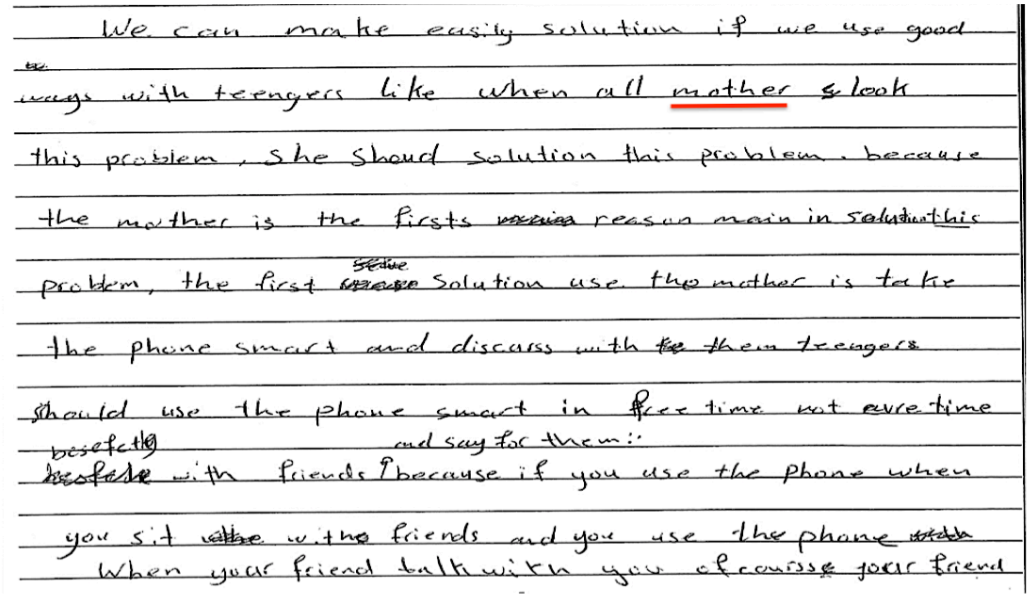
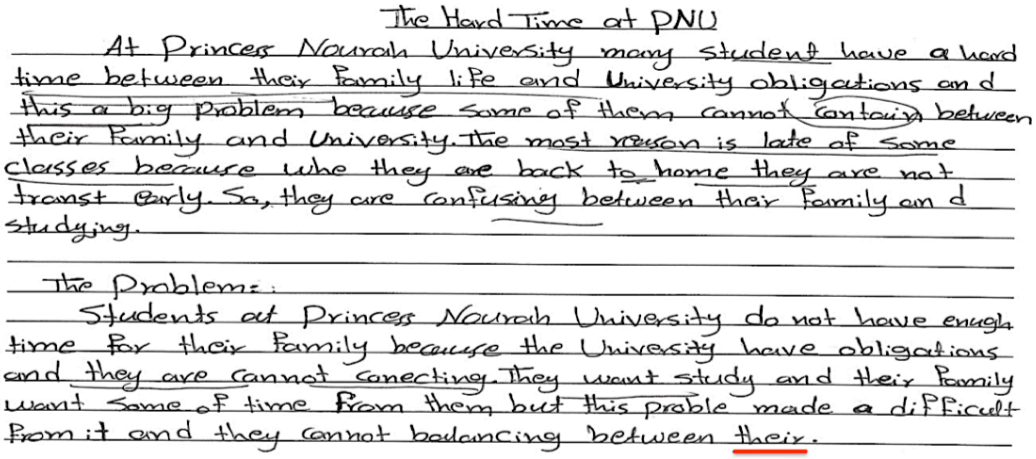
Error 9 (located in paragraph 1, line 2):



We can make easily solutions if we use good ways with teengers like when all mother & look this problem, she should solution this problem. because the mother is the firsts reason main in solution this problem, the first Solution use the mother is take the phone smart and discuss with them teengers should use the phone smart in free time not every time and say for them: with friends because if you use the phone when you sit with friends and you use the phone When your friend talk with you of course your friend

Error 10 (located in paragraph 2, line 5):



The Hard Time at PNU

At Princess Nourah University many student have a hard time between their Family life and University obligations and this a big problem because some of them cannot contain between their Family and University. The most reason is late of some classes because who they are back to home they are not transt early. So, they are confusing between their family and studying.

The Problem:

Students at Princess Nourah University do not have enough time for their family because the University have obligations and they are cannot conecting. They want study and their Family want some of time from them but this proble made a difficult from it and they cannot badancing between their.

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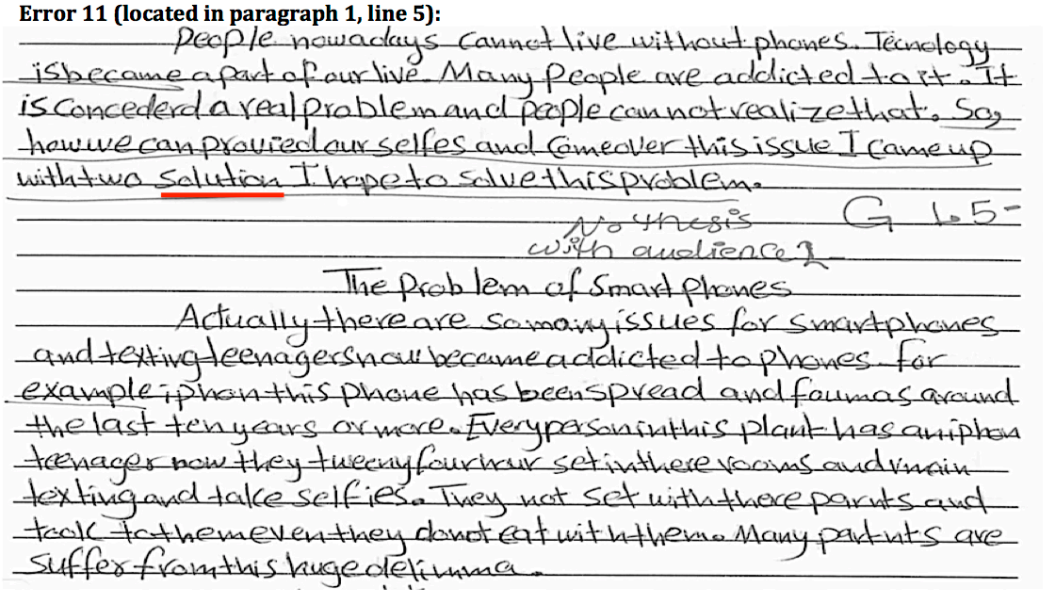
Error 11 (located in paragraph 1, line 5):



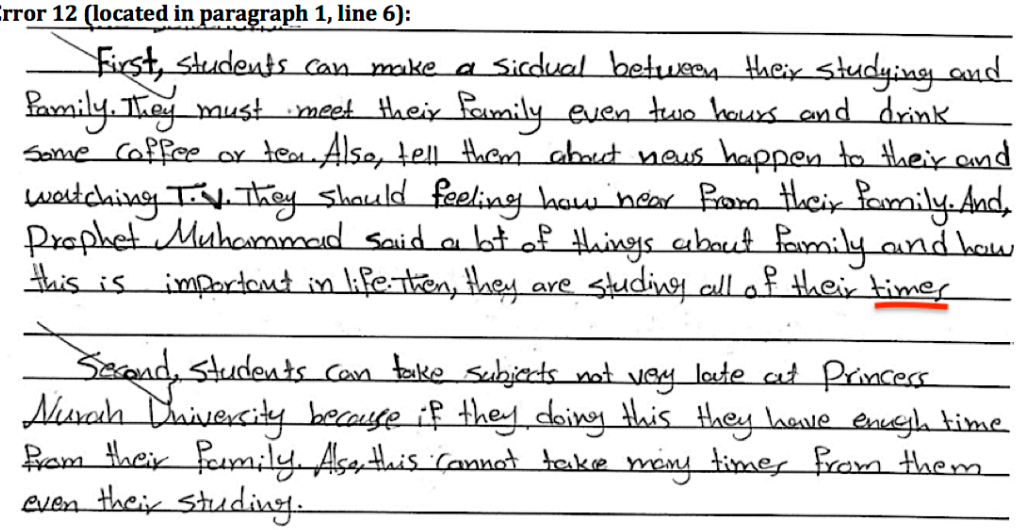
people nowadays cannot live without phones. Tecnology isbecame a part of our live. Many people are addicted to it. It is concedered a real problem and people cannot realize that. So, howwe can proured our selfes and comeover this issue I came up with two solution I hope to solve this problem.

No thesis G 1.5-
with audience 2

The problem of Smart phones

Actually there are so many issues for smartphones and texting teenagers now became addicted to phones for example iphon this phone has been spread and faumas around the last ten years or more. Every person in this plant has an iphon teenager now they tweenty four hour set in there rooms and main texting and take selfies. They not set with there parnts and took to them even they dont eat with them. Many parents are suffer from this huge delimma.

Error 12 (located in paragraph 1, line 6):



First, students can make a sicdual between their studying and family. They must meet their family even two hours and drink some coffee or tea. Also, tell them about news happen to their and watching T.V. They should feeling how near from their family. And, Prophet Muhammad said a bt of things about family and how this is important in life. then, they are studing all of their times

Second, students can take subjects not very late at Princess Nourah University because if they doing this they howe enogh time from their family. Also, this cannot takke many times from them even their studing.

Appendix K: Participant Consent Form in the Main Study

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Informed Consent Document

Title of Study: A Syntactic Analysis of Arabic Language Interference in Saudi College Students' Writing.

Researcher Details: Dina Talal Alhajailan
Department of Media, Culture and Language Department
Southlands College, University of Roehampton
80 Roehampton Lane, London SW15 5SL, UK
Contact Email: alhajaid@roehampton.ac.uk
Telephone: Uk # +44 (0)7575757000

Please take your time in deciding whether you would like to participate in this study. Please do not hesitate to ask any question at any time.

The purpose of this study is to investigate errors in Nominal Constructions produced by Saudi female college students in writing classes at Princess Norah University (PNU, Riyadh). The study is designed to contribute to improving English learning and teaching, especially in the Arab world.

You are being invited to participate because you are an EFL/ ESL English language instructor. It should take about 20 minutes to complete the questionnaire. If you agree to participate, only this questionnaire is needed; there is no further commitment.

If you agree to participate: you will be asked to complete a questionnaire by rating the degree of comprehensibility arising from errors in students' writing. The questionnaire is designed to record your professional judgments, not to evaluate them.

There are no foreseeable risks. There are no costs and no compensation for participating in this study.

You have the right to refuse to participate or to withdraw from the study at any time, without penalty. (Please note, however, that the data may still be used in a collated form.). You may omit any question that you cannot, or do not wish to, answer.

If your responses are cited in a presentation or publication, your name will not be disclosed.

Please note: if you have a concern about any aspect of your participation or any other queries please raise this with the researcher or the Director of Studies. If you would like to contact an independent party please contact the Head of Department.

Director of Studies Contact Details:
Dr. Eva Eppler
Department of Media, Culture & Language
Southlands College, University of Roehampton
80 Roehampton Lane, London SW15 5SL, UK
Email: e.eppler@roehampton.ac.uk
Tel: +44 (0) 20 8392 3791

Head of Department Contact Details:
Dr. Lourdes Melcion
Department of Media, Culture & Language
Southlands College, University of Roehampton
80 Roehampton Lane, London SW15 5SL, UK
Email: l.melcion@roehampton.ac.uk
Tel: +44 (0) 20 8392 3596

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Consent Statement

I agree to take part in this research, and am aware that I am free to withdraw at any point without giving a reason, although if I do so I understand that my data might still be used in a collated form. I understand that the information I provide will be treated in confidence by the researcher and that my identity will not be disclosed in any publication of the findings. I understand that all data will be collected and processed in accordance with the Data Protection Act 1998 and with the University's Data Protection Policy.

Signature: _____

Date: _____

Appendix L: Final Questionnaire in Main Study

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Questionnaire on "A Syntactic Analysis of Arabic Language Interference in Saudi College Students' Writing"

Please tick (√) where applicable.

A. General information:

(1) What is your gender? Male □ Female □

(2) What is your highest qualification?

Bachelor's □ Master's □ Doctorate □ Other □

(3) How long is your experience in teaching ESL/EFL?

First year □ 2-5 years □ More than 5 years □

(4) What is your mother tongue? ……..

B. Instructions:

First:

The examples in the questionnaire are collected from Arab adult learners' writing. Highlighted in red are the linguistic errors under study; kindly disregard any other errors in the given texts.

In the example below, the errors under study are: incorrectly inserted "(the)", incorrectly omitted "( )" and incorrectly used "this".

Error number	Contexts	1	2	3	4	Comments
1 (p. 1)	"In conclusion, all problems in (the) life has a solutions."					
2 (p. 1)	"They have ( ) new collection every week."					
3 (p. 1)	"And all things in life has good and bad, positive and negative, and social media is one of this things or problems."					

- In error #1, the brackets around "the" indicate that it is an error of insertion.
- In error #2, the brackets indicate that it is an error of omission of an item which is necessary in this context.
- In error #3, where there are no brackets, one element has been substituted for another which would be more appropriate in this context; specifically, "this" is substituted for "these".

Your task is to rate the comprehensibility of the passage containing each error, using the scale indicated below.

Please base your rating,

- only on the item in red, even if there are other aspects of the sentence that seem incorrect.
- comprehensibility only, **not** on how incorrect you think the error is. If necessary, you can consult the original written context by turning to the page number indicated next to each error.

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The right-hand column is provided for comments you may wish to make on any of the examples. Your comments will be much appreciated.

Please note: […] Square brackets enclose explanations for words that might be unfamiliar or difficult to recognise for reasons unrelated to the grammatical errors under investigation. They are used twice in the questionnaire.

Second:
Please look at the guidelines for the comprehensibility scale below and read carefully what each rating represents.

1	Very Comprehensible	The meaning is entirely clear, and can be understood without effort.
2	Comprehensible	The meaning can be understood with a little effort.
3	Almost Incomprehensible	The meaning can be understood only with considerable effort.
4	Incomprehensible	The meaning cannot be understood without additional information.

Third:
Please complete the following based on the instructions above:

Error Number (page number)	Contexts	1	2	3	4	Comments
1 (p. 4)	"(The) a lot peoples today in all over the world are going to them jobs except the weekend."					
2 (p. 4)	"(The) work is important for a lot of people."					
3 (p. 5)	"…when I be inside one of these shops, I should buy ( ) thing even if I do not need it."					
4 (p. 5)	"Don't choose ( ) major [=subject] we haven't any idea about his."					
5 (p. 6)	"All these things that I mentioned before, which I agree with (it), because every teenager have to complete his study to get a good grade."					
6 (p. 6)	"Many students in PNU (they) have a hard time balancing family life and university obligations."					

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7 (p. 7)	"Parents should have jobs or the material to make them children live and study in comfortable."					
8 (p. 7)	"Because students will be very excited to work hard and get this degrees."					
9 (p. 8)	"Second solution, students study in all day( ) in the week."					
10 (p. 8)	"Every girl(s) in this worlds love shopping."					
11 (p. 9)	"To sum up, getting into any college without knowing any information(s) about their majors is a big problem."					
12 (p. 9)	"The friendship is the most beautiful relationship in the person( ) life."					
13 (p. 10)	"The parents (in) all around the world should take some real number to solve this problem."					
14 (p. 10)	"There are many place you can go (to) shopping in."					
15 (p. 11)	"As a result, work in the same time and study make you feel nervous."					
16 (p. 11)	"Shopping of males [= malls] is the most way that everyone used to shop."					

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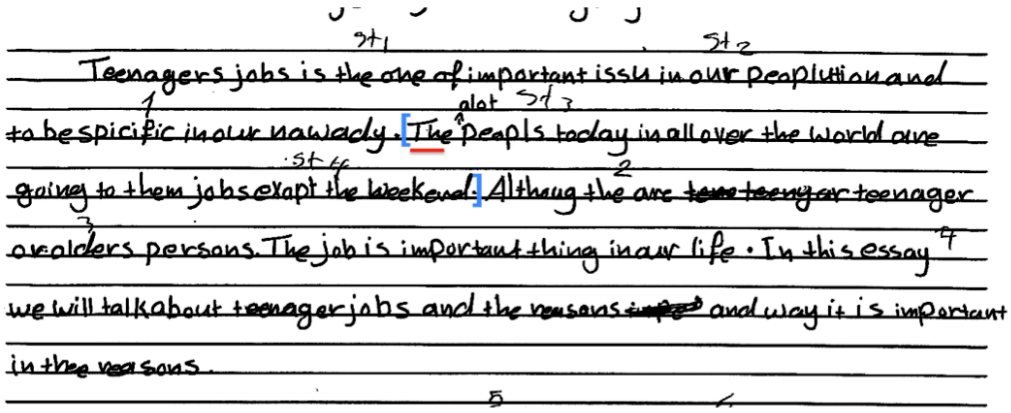
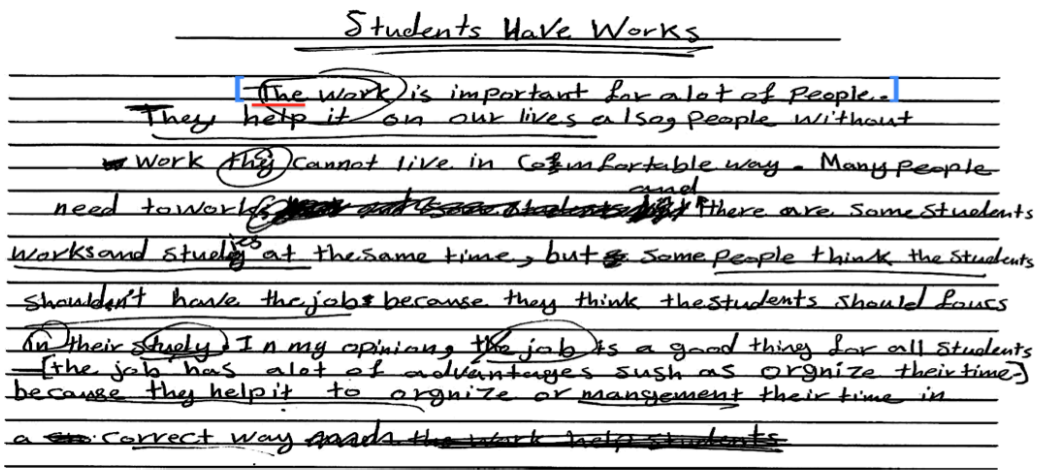
Original contexts of the Errors

Below are the original written contexts for each error. Error locations are underlined in red; the clause containing each error is enclosed in blue brackets. The spelling was corrected in the above examples to avoid confusion. In the extracts below, they are exactly as originally written by the students.

Error # 1:



Error # 2:



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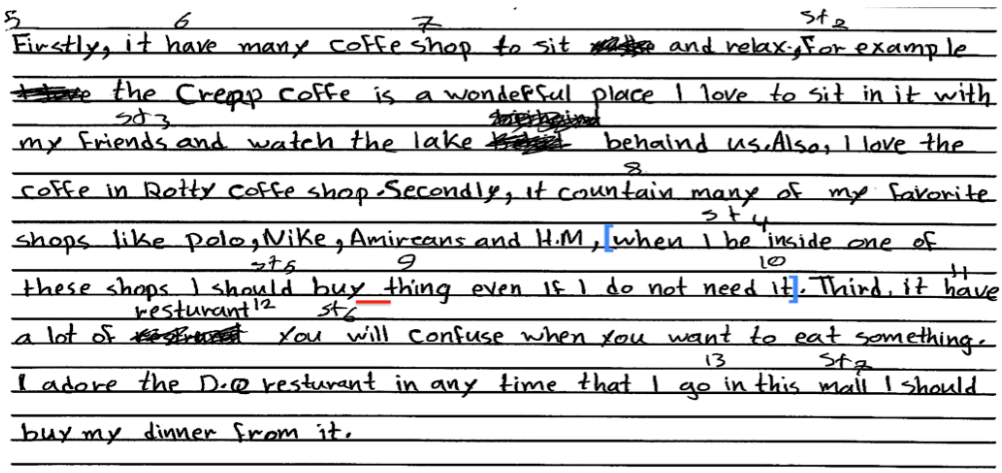
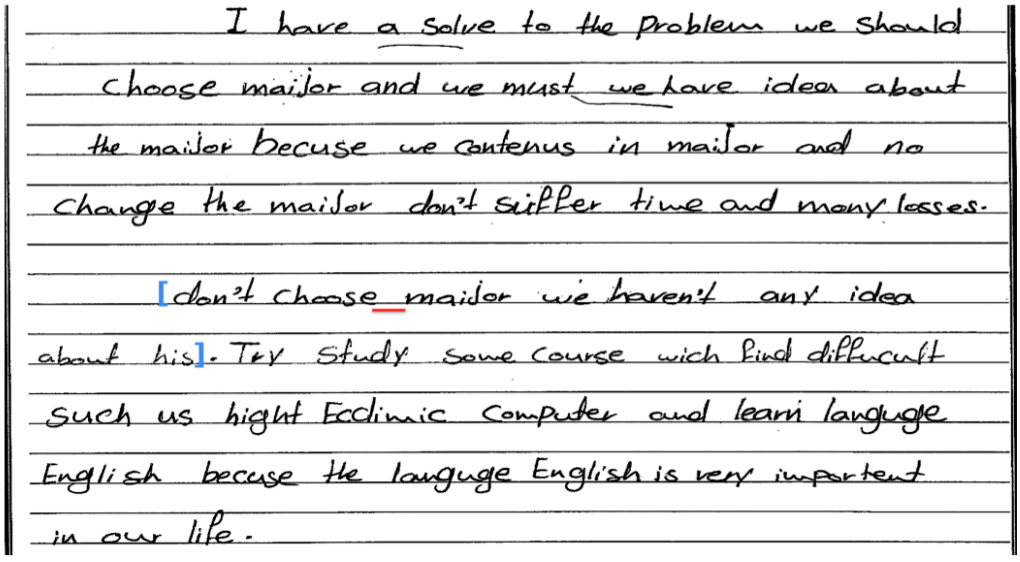
Error # 3:


Firstly, it have many coffe shop to sit and relax. for example the Crepp coffe is a wonderful place I love to sit in it with my friends and watch the lake behaind us. Also, I love the coffe in Dotty coffe shop. Secondly, it countain many of my favorite shops like polo, Nike, Amircans and H.M, when I be inside one of these shops I should buy thing even if I do not need it. Third, it have a lot of resturant you will confuse when you want to eat something. I adore the D.@ resturant in any time that I go in this mall I should buy my dinner from it.

Error # 4:


I have a solve to the problem we should choose maijor and we must we have idea about the maijor becuse we contenus in maijor and no change the maijor don't suffer time and many losses.

[don't choose maijor we haven't any idea about his]. Try study some course wich find diffucult such us hight Ecdimic computer and learn languge English becuse the languge English is very importent in our life.

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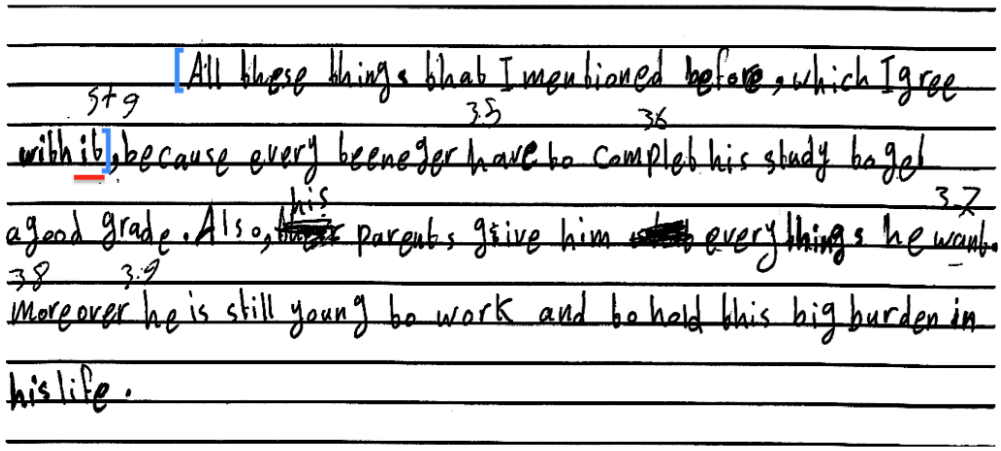
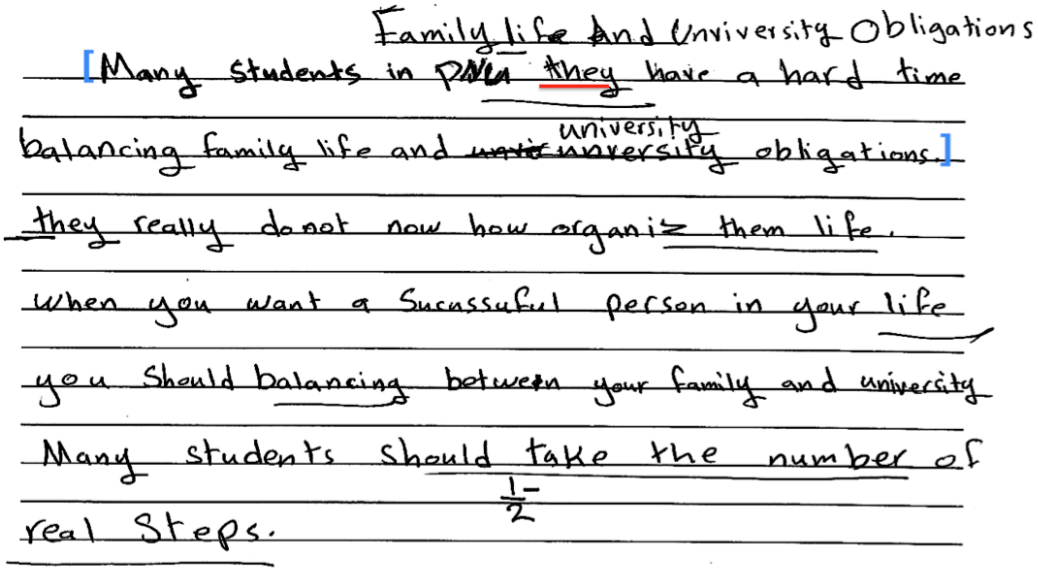
Error # 5:



Error # 6:



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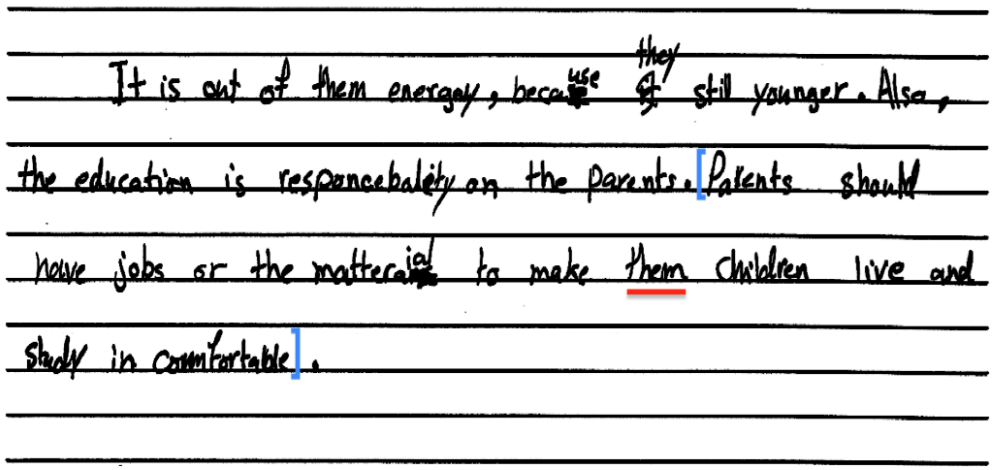
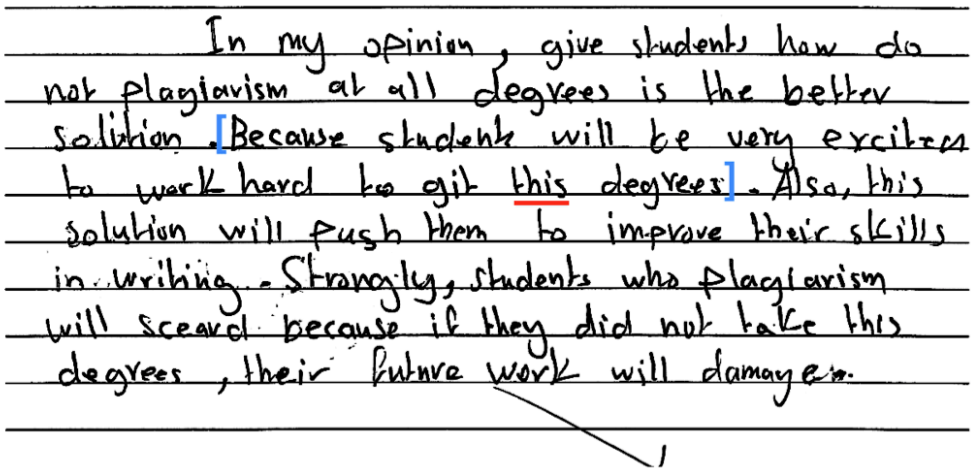
Error # 7:



Error # 8:



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Error # 9:

[Socend solution, students study in [illegible] all day in the week]. In weekend take a break and site with family for 2 days. Some students

Error # 10:

[Every girls in this words love Shopping. There are alot of place to Shopping.] For example, malls, city and soug. All of these place shop clothes and accessories. For me, my favorite place to shop is mall. There are three reasons why it is my favorite place to shop.

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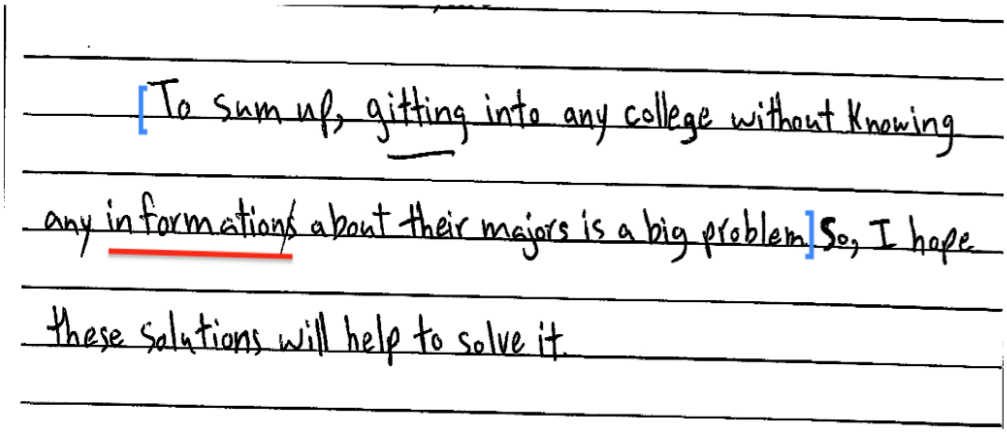
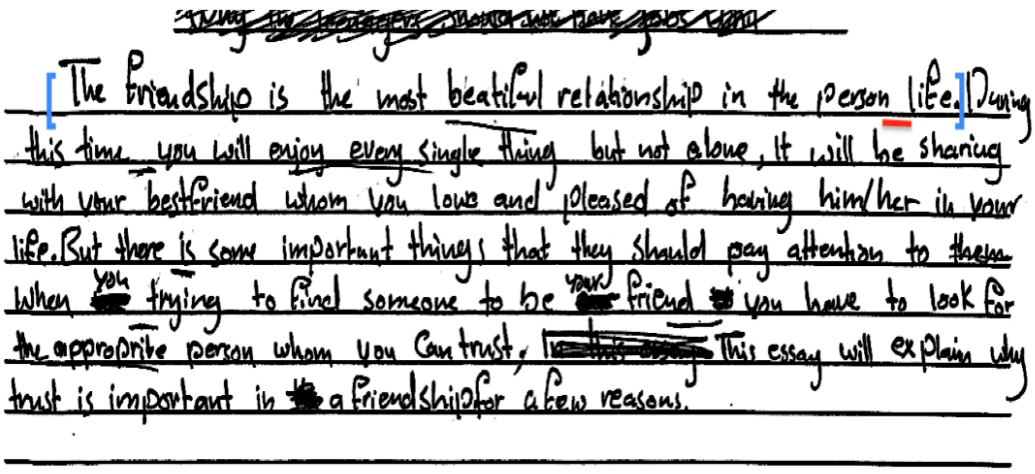
Error # 11:


[To sum up, gitting into any college without knowing any informations about their majors is a big problem] So, I hope these solutions will help to solve it.

Error # 12:


[The friendship is the most beatiful relationship in the person life.] During this time, you will enjoy every single thing but not alone, it will be sharing with your bestfriend whom you love and pleased of having him/her in your life. But there is some important things that they should pay attention to them. When you trying to find someone to be your friend you have to look for the appropribe person whom you can trust, This essay will explain why trust is important in a friendship for a few reasons.

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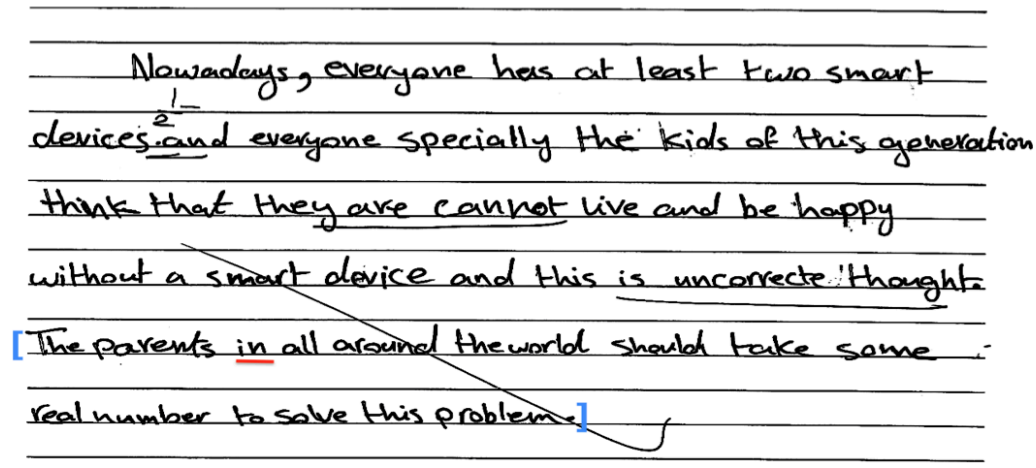
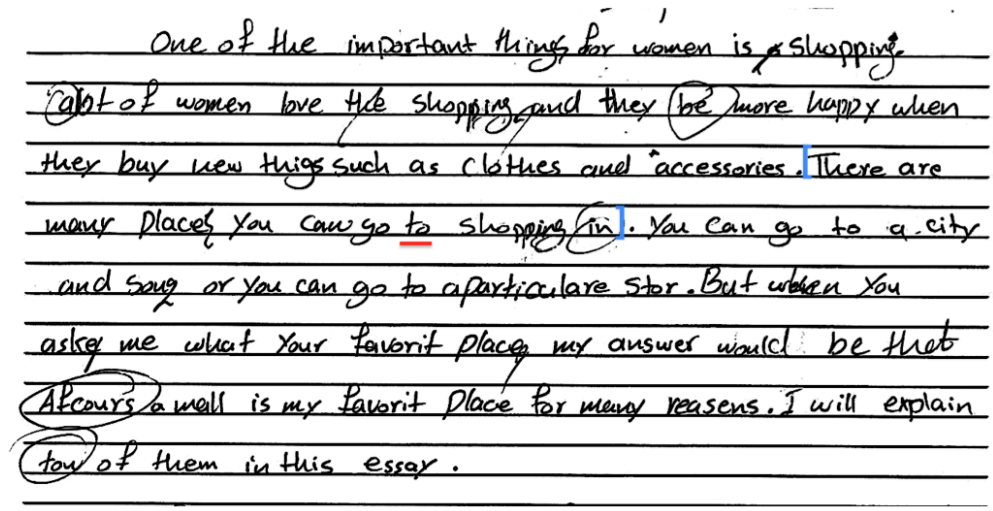
Error # 13:



Error # 14:



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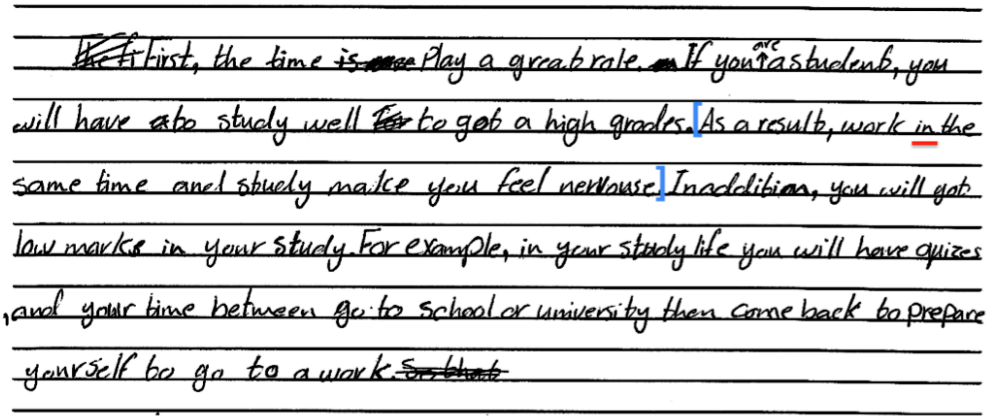
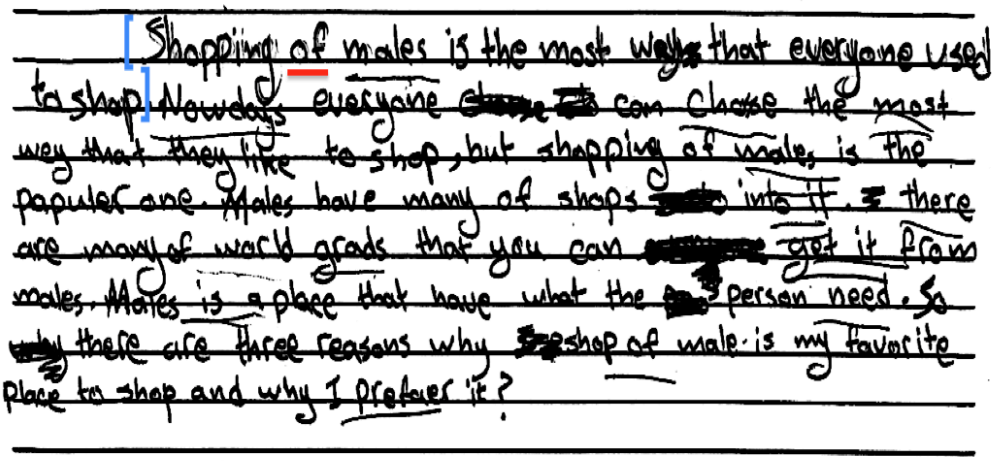
Error # 15:



Error # 16:



Appendix M: Reliability Analysis using Cronbach's Alpha

Cronbach's alpha was high (0.87) for the 16 questionnaire items. This indicates a high level of internal consistency and suggests that the questionnaire is reliable for assessing the comprehensibility of errors.

Reliability Statistics

Cronbach's Alpha	N of Items
.870	16

The table below shows the mean (or average) score and standard deviation for each item. The standard deviations give an indication of how varied the ratings are for the items – a smaller standard deviation means that responses are less varied. For instance, Item 5 had a mean rating of 1.6 with standard deviation of 0.621, which suggests that most people rated this question very similarly. Indeed, the frequency table for Item 5 shows that 28 of 30 participants (93%) rated the item as either 1 or 2.

Item Statistics

	Mean	Std. Deviation	N
Item 1	2.17	0.834	30
Item 2	1.43	0.774	30
Item 3	1.97	0.669	30
Item 4	2.33	0.884	30
Item 5	1.60	0.621	30
Item 6	1.37	0.765	30
Item 7	1.80	0.805	30
Item 8	1.53	0.730	30
Item 9	2.07	0.785	30
Item 10	1.33	0.661	30
Item 11	1.20	0.610	30
Item 12	1.47	0.629	30

Item 13	1.73	0.785	30
Item 14	1.47	0.681	30
Item 15	1.97	0.718	30
Item 16	2.50	0.900	30

The tables below show the value of Cronbach's alpha if a question was to be removed from the questionnaire. With the exceptions of Items 4 and 9, Cronbach's alpha was lower than 0.87, suggesting that most of the questions should be retained.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Item 1	25.77	42.116	.517	.863
Item 2	26.50	42.741	.501	.863
Item 3	25.97	42.516	.625	.858
Item 4	25.60	47.903	-.023	**.890**
Item 5	26.33	43.195	.591	.860
Item 6	26.57	42.461	.538	.862
Item 7	26.13	43.292	.422	.867
Item 8	26.40	41.559	.671	.856
Item 9	25.87	45.913	.177	**.878**
Item 10	26.60	41.834	.718	.855
Item 11	26.73	42.685	.671	.857
Item 12	26.47	44.051	.475	.864
Item 13	26.20	42.855	.480	.864
Item 14	26.47	41.361	.751	.853
Item 15	25.97	42.102	.621	.858
Item 16	25.43	40.047	.663	.855

Item 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	23.3	23.3	23.3
	2	12	40.0	40.0	63.3
	3	10	33.3	33.3	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	21	70.0	70.0	70.0
	2	6	20.0	20.0	90.0
	3	2	6.7	6.7	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	20.0	20.0	20.0
	2	20	66.7	66.7	86.7
	3	3	10.0	10.0	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	13.3	13.3	13.3
	2	16	53.3	53.3	66.7
	3	6	20.0	20.0	86.7
	4	4	13.3	13.3	100.0
	Total	30	100.0	100.0	

Item 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	46.7	46.7	46.7
	2	14	46.7	46.7	93.3
	3	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Item 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	76.7	76.7	76.7
	2	4	13.3	13.3	90.0
	3	2	6.7	6.7	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	40.0	40.0	40.0
	2	13	43.3	43.3	83.3
	3	4	13.3	13.3	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	56.7	56.7	56.7
	2	11	36.7	36.7	93.3
	3	1	3.3	3.3	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	20.0	20.0	20.0
	2	18	60.0	60.0	80.0
	3	4	13.3	13.3	93.3
	4	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Item 10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	73.3	73.3	73.3
	2	7	23.3	23.3	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	86.7	86.7	86.7
	2	3	10.0	10.0	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	60.0	60.0	60.0
	2	10	33.3	33.3	93.3
	3	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

Item 13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	46.7	46.7	46.7
	2	10	33.3	33.3	80.0
	3	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

Item 14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	60.0	60.0	60.0
	2	11	36.7	36.7	96.7
	4	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Item 15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	26.7	26.7	26.7
	2	15	50.0	50.0	76.7
	3	7	23.3	23.3	100.0
	Total	30	100.0	100.0	

Item 16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	10.0	10.0	10.0
	2	14	46.7	46.7	56.7
	3	8	26.7	26.7	83.3
	4	5	16.7	16.7	100.0
	Total	30	100.0	100.0	

Appendix N: Additional Tables for Text Comprehensibility

Comprehensibility Ratings by additional demographic subcategories of participants

Gender

Across nearly all linguistic categories (major categories and subcategories), male participants more frequently rated errors as incomprehensible than did female participants. The exceptions were Noun and Demonstrative Pronoun (Pro-Dem) errors, for which the three male participants rated all examples as comprehensible.

Participants of both genders generally showed a pattern of rating article and preposition errors as incomprehensible more often than pronoun and noun errors. For male participants, there was an exception that the Possessive Pronoun error was rated as incomprehensible more often than the Preposition errors, and equally as often as Definite Article errors.

Level of academic qualification

The same pattern of rating article and preposition error-containing sentences as comprehensible less often than pronoun and noun errors generally held across qualification levels, with the exception that the two participants with "Other" qualifications rated all examples as comprehensible. At the level of subcategories, the possessive pronoun error-containing sentences were again an outlier: specifically, the participants with a Master's degree rated such sentences as comprehensible somewhat less often than indefinite article error-containing sentences.

Participants with doctorates more often rated error-containing sentences of all categories and subcategories as comprehensible than did participants with master's or bachelor's degrees. However, EFL teachers with master's degrees rated pronoun, noun, and preposition error-containing sentences as comprehensible slightly less often than those with bachelor's degrees did. Thus, there is not a monotonic relationship between increasing levels of academic qualifications and how likely participants are to rate errors as comprehensible.

Length of experience

Regarding the variable of the length of teaching experience, the general tendency was that participants with more experience rated error-containing sentences as comprehensible more often than those with less experience did. One exception was with Articles, for which the overall category and the two subcategories were rated comprehensible slightly less often by those with over five years' experience than by those with two to five years' experience. The same held for Noun errors. Finally, the demonstrative pronoun error was rated comprehensible (hence at 100%) by the single participant who was in their first year of teaching, which was a higher percentage of comprehensibility ratings than was the case for either group of participants with more experience. While it did not hold perfectly, it is unsurprising that there should be a tendency for those with more experience to be more likely to rate errors as comprehensible. Those with more experience have been exposed more often to common student errors and have had more time to become used to interpreting them, so it would make sense if more experienced teachers would be more likely to find a given error easy (or possible) to understand.

Gender

	Female (n = 27)				Male (n = 3)			
	COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)		COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)	
	n	%	*n*	%	*n*	%	*n*	%
Article	**85**	**78.70%**	**23**	**21.30%**	**7**	**58.33%**	**5**	**41.67%**
Art-Def	42	77.78%	12	22.22%	4	66.67%	2	33.33%
Art-Indef	43	79.63%	11	20.37%	3	50.00%	3	50.00%
Pronoun	**98**	**90.74%**	**10**	**9.26%**	**10**	**83.33%**	**2**	**16.67%**
Pro-Pers	50	92.59%	4	7.41%	5	83.33%	1	16.67%
Pro-Poss	23	85.19%	4	14.81%	2	66.67%	1	33.33%
Pro-Dem	25	92.59%	2	7.41%	3	100.00%	0	0.00%
Noun *(all N-C)*	**98**	**90.74%**	**10**	**9.26%**	**12**	**100.00%**	**0**	**0.00%**
Preposition	**84**	**77.78%**	**24**	**22.22%**	**9**	**75.00%**	**3**	**25.00%**

Level of Academic Qualification

	Bachelor's (*n* = 7)				Master's (*n* = 15)				Doctorate (*n* = 6)				Other (*n* = 2)			
	COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)		COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)		COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)		COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Article	**20**	**71.43%**	**8**	**28.57%**	**42**	**70.00%**	**18**	**30.00%**	**22**	**91.67%**	**2**	**8.33%**	**8**	**100.00%**	**0**	**0.00%**
Art-Def	11	78.57%	3	21.43%	19	63.33%	11	36.67%	12	100.00%	0	0.00%	4	100.00%	0	0.00%
Art-Indef	9	64.29%	5	35.71%	23	76.67%	7	23.33%	10	83.33%	2	16.67%	4	100.00%	0	0.00%
Pronoun	**25**	**89.29%**	**3**	**10.71%**	**51**	**85.00%**	**9**	**15.00%**	**24**	**100.00%**	**0**	**0.00%**	**8**	**100.00%**	**0**	**0.00%**
Pro-Pers	12	85.71%	2	14.29%	27	90.00%	3	10.00%	12	100.00%	0	0.00%	4	100.00%	0	0.00%
Pro-Poss	6	85.71%	1	14.29%	11	73.33%	4	26.67%	6	100.00%	0	0.00%	2	100.00%	0	0.00%
Pro-Dem	7	100.00%	0	0.00%	13	86.67%	2	13.33%	6	100.00%	0	0.00%	2	100.00%	0	0.00%
Noun *(all N-C)*	**27**	**96.43%**	**1**	**3.57%**	**51**	**85.00%**	**9**	**15.00%**	**24**	**100.00%**	**0**	**0.00%**	**8**	**100.00%**	**0**	**0.00%**
Preposition	**22**	**78.57%**	**6**	**21.43%**	**41**	**68.33%**	**19**	**31.67%**	**22**	**91.67%**	**2**	**8.33%**	**8**	**100.00%**	**0**	**0.00%**

Length of Experience

	First Year (*n* = 1)				Two to Five Years (*n* = 9)				More than Five Years (*n* = 20)			
	COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)		COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)		COMPREHENSIBLE (ratings 1-2)		INCOMPREHENSIBLE (ratings 3-4)	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Article	**2**	**50.00%**	**2**	**50.00%**	**29**	**80.56%**	**7**	**19.44%**	**61**	**76.25%**	**19**	**23.75%**
Art-Def	1	50.00%	1	50.00%	15	83.33%	3	16.67%	30	75.00%	10	25.00%
Art-Indef	1	50.00%	1	50.00%	14	77.78%	4	22.22%	31	77.50%	9	22.50%
Pronoun	**3**	**75.00%**	**1**	**25.00%**	**31**	**86.11%**	**5**	**13.89%**	**74**	**92.50%**	**6**	**7.50%**
Pro-Pers	2	100.00%	0	0.00%	16	88.89%	2	11.11%	37	92.50%	3	7.50%
Pro-Poss	0	0.00%	1	100.00%	7	77.78%	2	22.22%	18	90.00%	2	10.00%
Pro-Dem	1	100.00%	0	0.00%	8	88.89%	1	11.11%	19	95.00%	1	5.00%
Noun *(all N-C)*	**4**	**100.00%**	**0**	**0.00%**	**33**	**91.67%**	**3**	**8.33%**	**73**	**91.25%**	**7**	**8.75%**
Preposition	**3**	**75.00%**	**1**	**25.00%**	**25**	**69.44%**	**11**	**30.56%**	**65**	**81.25%**	**15**	**18.75%**

Appendix O: Intra-class Correlation Coefficient Results Tables

For the independently chosen NPs:

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Intraclass Correlation Coefficient

		95% Confidence Interval		F Test with True Value 0			
	Intraclass Correlation[b]	Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.942[a]	.923	.957	33.418	175	175	.000
Average Measures	.970[c]	.960	.978	33.418	175	175	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type C intraclass correlation coefficients using a consistency definition. The between-measure variance is excluded from the denominator variance.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

The inter-rater reliability between the NS and me for the independently chosen NPs is = .94 (p <.001, 95% CI [0.92, 0.96]), which is considered as excellent agreement.

For the independently chosen Correct NPs:

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Intraclass Correlation Coefficient

		95% Confidence Interval		F Test with True Value 0			
	Intraclass Correlation[b]	Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.895[a]	.859	.922	18.744	175	175	.000
Average Measures	.945[c]	.924	.959	18.744	175	175	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

The inter-rater reliability between the NS and me for the independently chosen Correct NPs is = .90 ($p < .001$, 95% CI [0.86, 0.92]), which is considered as borderline excellent agreement.

For the independently chosen Incorrect NPs:

Case Processing Summary

		N	%
Cases	Valid	176	100.0
	Excluded[a]	0	.0
	Total	176	100.0

a. Listwise deletion based on all variables in the procedure.

Intraclass Correlation Coefficient

		95% Confidence Interval		F Test with True Value 0			
	Intraclass Correlation[b]	Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.792[a]	.726	.842	8.898	175	175	.000
Average Measures	.884[c]	.841	.915	8.898	175	175	.000

Two-way mixed effects model where people effects are random and measures effects are fixed.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

c. This estimate is computed assuming the interaction effect is absent, because it is not estimable otherwise.

The inter-rater reliability between the NS and me for the independently chosen Incorrect NPs is = .80 (p < .001, 95% CI [0.73, 0.84]), which is considered as borderline good agreement.

Appendix P: Cohen's Kappa Results Tables

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Researcher * Bilingual Expert	415	100.0%	0	0.0%	415	100.0%

Researcher * Bilingual Expert Cross tabulation

Count

		Bilingual Expert		
		Interlanguage	Intralanguage	Total
Researcher	Interlanguage	246	15	261
	Intralanguage	22	132	154
Total		268	147	415

Symmetric Measures

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Measure of Agreement	Kappa	.807	.030	16.455	.000
N of Valid Cases		415			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Appendix Q: Chi-square and Binomial Tests Results Tables

Linguistic Categories

ling_cat

	Observed N	Expected N	Residual
Article	993	401.0	592.0
Pronoun	612	401.0	211.0
Noun	547	401.0	146.0
Preposition	196	401.0	-205.0
Adjective	37	401.0	-364.0
Quantifier	21	401.0	-380.0
Total	2406		

Test Statistics

	ling_cat
Chi-Square	1833.471[a]
df	5
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 401.0.

The output above is from a Chi-square test on the 6 linguistic categories. This tests if the percentage of errors is similar among all 6 categories. The p-value is less than 0.001 (see 'Asymp. Sig.' Value, highlighted yellow) so the percentage of errors is significantly different among the 6 categories.

Article vs Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Article	993	.62	.50	.000
	Group 2	Pronoun	612	.38		
	Total		1605	1.00		

The binomial test shows that the percentage of errors in Article vs Pronoun is significantly different ($p < 0.001$). In this comparison, 62% of the errors are in Article and 38% of the errors are in Pronoun so significantly more errors come from Article than Pronoun.

Article vs Noun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Article	993	.64	.50	.000
	Group 2	Noun	547	.36		
	Total		1540	1.00		

The binomial test shows that the percentage of errors in Article vs Noun is significantly different ($p < 0.001$). In this comparison, 64% of the errors are in Article and 36% of the errors are in Noun so significantly more errors come from Article than Noun.

Article vs Preposition

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Article	993	.84	.50	.000
	Group 2	Preposition	196	.16		
	Total		1189	1.00		

The binomial test shows that the percentage of errors in Article vs Preposition is significantly different ($p < 0.001$). In this comparison, 84% of the errors are in Article and 16% of the errors are in Preposition so significantly more errors come from Article than Preposition.

Article vs Adjective

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Article	993	.96	.50	.000
	Group 2	Adjective	37	.04		
	Total		1030	1.00		

The binomial test shows that the percentage of errors in Article vs Adjective is significantly different ($p < 0.001$). In this comparison, 96% of the errors are in Article and 4% of the errors are in Adjective so significantly more errors come from Article than Adjective.

Article vs Quantifier

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Article	993	.98	.50	.000
	Group 2	Quantifier	21	.02		
	Total		1014	1.00		

The binomial test shows that the percentage of errors in Article vs Quantifier is significantly different ($p < 0.001$). In this comparison, 98% of the errors are in Article and 2% of the errors are in Adjective so significantly more errors come from Article than Adjective.

Pronoun vs Noun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Pronoun	612	.53	.50	.060
	Group 2	Noun	547	.47		
	Total		1159	1.00		

The binomial test shows that the percentage of errors in Pronoun vs Noun is not significantly different ($p = 0.06$). In this comparison, 53% of the errors are in Pronoun and 47% of the errors are in Noun.

Pronoun vs Preposition

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Pronoun	612	.76	.50	.000
	Group 2	Preposition	196	.24		
	Total		808	1.00		

The binomial test shows that the percentage of errors in Pronoun vs Preposition is significantly different ($p < 0.001$). In this comparison, 76% of the errors are in Pronoun and 24% of the errors are in Preposition so significantly more errors come from Pronoun than Preposition.

Pronoun vs Adjective

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Pronoun	612	.94	.50	.000
	Group 2	Adjective	37	.06		
	Total		649	1.00		

The binomial test shows that the percentage of errors in Pronoun vs Adjective is significantly different ($p < 0.001$). In this comparison, 94% of the errors are in Pronoun and 6% of the errors are in Adjective so significantly more errors come from Pronoun than Adjective.

Pronoun vs Quantifier

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Pronoun	612	.97	.50	.000
	Group 2	Quantifier	21	.03		
	Total		633	1.00		

The binomial test shows that the percentage of errors in Pronoun vs Quantifier is significantly different ($p < 0.001$). In this comparison, 97% of the errors are in Pronoun and 3% of the errors are in Quantifier so significantly more errors come from Pronoun than Quantifier.

Noun vs Preposition

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Noun	547	.74	.50	.000
	Group 2	Preposition	196	.26		
	Total		743	1.00		

The binomial test shows that the percentage of errors in Noun vs Preposition is significantly different ($p < 0.001$). In this comparison, 74% of the errors are in Noun and 26% of the errors are in Preposition so significantly more errors come from Noun than Preposition.

Noun vs Adjective

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Noun	547	.94	.50	.000
	Group 2	Adjective	37	.06		
	Total		584	1.00		

The binomial test shows that the percentage of errors in Noun vs Adjective is significantly different ($p < 0.001$). In this comparison, 94% of the errors are in Noun and 6% of the errors are in Adjective so significantly more errors come from Noun than Adjective.

Noun vs Quantifier

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Noun	547	.96	.50	.000
	Group 2	Quantifier	21	.04		
	Total		568	1.00		

The binomial test shows that the percentage of errors in Noun vs Quantifier is significantly different ($p < 0.001$). In this comparison, 96% of the errors are in Noun and 4% of the errors are in Quantifier so significantly more errors come from Noun than Quantifier.

Preposition vs Adjective

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Preposition	196	.84	.50	.000
	Group 2	Adjective	37	.16		
	Total		233	1.00		

The binomial test shows that the percentage of errors in Preposition vs Adjective is significantly different ($p < 0.001$). In this comparison, 84% of the errors are in Preposition and 16% of the errors are in Adjective so significantly more errors come from Preposition than Adjective.

Preposition vs Quantifier

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Preposition	196	.90	.50	.000
	Group 2	Quantifier	21	.10		
	Total		217	1.00		

The binomial test shows that the percentage of errors in Preposition vs Quantifier is significantly different ($p < 0.001$). In this comparison, 90% of the errors are in Preposition and 10% of the errors are in Quantifier so significantly more errors come from Preposition than Quantifier.

Adjective vs Quantifier

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_cat	Group 1	Adjective	37	.64	.50	.048
	Group 2	Quantifier	21	.36		
	Total		58	1.00		

The binomial test shows that the percentage of errors in Adjective vs Quantifier is significantly different ($p = 0.048$). In this comparison, 64% of the errors are in Adjective and 36% of the errors are in Quantifier so significantly more errors come from Adjective than Quantifier.

Article

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	ART-DEF (Definite Article)	672	.68	.50	.000
	Group 2	ART-INDF (Indefinite Article)	321	.32		
	Total		993	1.00		

This is a Binomial test for the 2 subcategories within the Article category. The binomial test can be used here as only two things are being compared. The p-value is

less than 0.001 (see the value under 'Exact Sig. (2-tailed)', highlighted yellow) so the percentage of errors is significantly different between ART-DEF and ART-INDF.

Pronoun

ling_subcat

	Observed N	Expected N	Residual
PRON-PERS (Personal Pronoun)	399	153.0	246.0
PRON-POSS (Possessive Pronoun)	106	153.0	-47.0
PRON-REL (Relative Pronoun)	69	153.0	-84.0
PRON-DEM (Demonstrative Pronoun)	38	153.0	-115.0
Total	612		

Test Statistics

	ling_subcat
Chi-Square	542.523[a]
df	3
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 153.0.

The Chi-square test is used to compare the 4 subcategories within the Pronoun category. Again, $p < 0.001$ so this tells us that the percentage of errors is significantly different among the 4 subcategories.

Personal Pronoun vs Possessive Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	PRON-PERS (Personal Pronoun)	399	.79	.50	.000
	Group 2	PRON-POSS (Possessive Pronoun)	106	.21		
	Total		505	1.00		

The binomial test shows that the percentage of errors in Personal Pronoun vs Possessive Pronoun is significantly different ($p < 0.001$). In this comparison, 79% of the errors are in Personal Pronoun and 21% of the errors are in Possessive Pronoun so significantly more errors come from Personal Pronoun than Possessive Pronoun.

Personal Pronoun vs Relative Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	PRON-PERS (Personal Pronoun)	399	.85	.50	.000
	Group 2	PRON-REL (Relative Pronoun)	69	.15		
	Total		468	1.00		

The binomial test shows that the percentage of errors in Personal Pronoun vs Relative Pronoun is significantly different ($p < 0.001$). In this comparison, 85% of the errors are in Personal Pronoun and 15% of the errors are in Relative Pronoun so significantly more errors come from Personal Pronoun than Relative Pronoun.

Personal Pronoun vs Demonstrative Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	PRON-PERS (Personal Pronoun)	399	.91	.50	.000
	Group 2	PRON-DEM (Demonstrative Pronoun)	38	.09		
	Total		437	1.00		

The binomial test shows that the percentage of errors in Personal Pronoun vs Demonstrative Pronoun is significantly different ($p < 0.001$). In this comparison, 91% of the errors are in Personal Pronoun and 9% of the errors are in Demonstrative Pronoun so significantly more errors come from Personal Pronoun than Demonstrative Pronoun.

Possessive Pronoun vs Relative Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	PRON-POSS (Possessive Pronoun)	106	.61	.50	.006
	Group 2	PRON-REL (Relative Pronoun)	69	.39		
	Total		175	1.00		

The binomial test shows that the percentage of errors in Possessive Pronoun vs Relative Pronoun is significantly different ($p = 0.006$). In this comparison, 61% of the errors are in Possessive Pronoun and 39% of the errors are in Relative Pronoun so significantly more errors come from Possessive Pronoun than Relative Pronoun.

Possessive Pronoun vs Demonstrative Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	PRON-POSS (Possessive Pronoun)	106	.74	.50	.000
	Group 2	PRON-DEM (Demonstrative Pronoun)	38	.26		
	Total		144	1.00		

The binomial test shows that the percentage of errors in Possessive Pronoun vs Demonstrative Pronoun is significantly different ($p < 0.001$). In this comparison, 74% of the errors are in Possessive Pronoun and 26% of the errors are in Demonstrative Pronoun so significantly more errors come from Possessive Pronoun than Demonstrative Pronoun.

Relative Pronoun vs Demonstrative Pronoun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	PRON-REL (Relative Pronoun)	69	.64	.50	.004
	Group 2	PRON-DEM (Demonstrative Pronoun)	38	.36		
	Total		107	1.00		

The binomial test shows that the percentage of errors in Relative Pronoun vs Demonstrative Pronoun is significantly different (p = 0.004). In this comparison, 64% of the errors are in Possessive Pronoun and 36% of the errors are in Demonstrative Pronoun so significantly more errors come from Relative Pronoun than Demonstrative Pronoun.

Noun

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	NN-C (Common Noun)	532	.97	.50	.000
	Group 2	NN-POSS (Possessive Noun)	15	.03		
	Total		547	1.00		

The binomial test is used to compare the 2 subcategories within the Noun category. The p-value is < 0.001 so the percentage of errors is significantly different among these 2 subcategories.

Preposition

There is only one Preposition subcategory so not statistical test is required.

Adjective

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
ling_subcat	Group 1	ADJ-ATT (Attributive Adjective)	33	.89	.50	.000
	Group 2	ADJ-PRED (Predicative Adjective)	4	.11		
	Total		37	1.00		

The binomial test is used to compare the 2 subcategories within the Adjective category. The p-value is < 0.001 so the percentage of errors is significantly different among these 2 subcategories.

Quantifier

There is only one Quantifier subcategory so not statistical test is required.

Appendix R: Pearson's Correlation Coefficient Results Tables

A Pearson correlation was applied to see if there was a linear relationship between the frequency of the four most frequent linguistic categories and the comprehensibility of the text.

Correlations

		Frequency	Comprehensibility
Frequency	Pearson Correlation	1	-.087
	Sig. (2-tailed)		.913
	N	4	4
Comprehensibility	Pearson Correlation	-.087	1
	Sig. (2-tailed)	.913	
	N	4	4

The correlation value was -.09, showing no linear relationship between frequency and comprehensibility.

Another Pearson correlation was applied to see if there was a linear relationship between the frequency of the linguistic subcategories (as seen in Table 5.10) of the four most frequent linguistic categories and the comprehensibility of the text.

Correlations

		Frequency	Comprehensibility
Frequency	Pearson Correlation	1	-.167
	Sig. (2-tailed)		.720
	N	7	7
Comprehensibility	Pearson Correlation	-.167	1
	Sig. (2-tailed)	.720	
	N	7	7

The correlation value was -.17, showing no linear relationship between them.

Appendix S: Test for Differences between the NSs and NNs in Proportions

When comparing NS to NNS, there were no significant differences in their comprehensibility ratings for any of the linguistic categories: for articles ($\chi 2 = 1.68$, $p = .195$); for nouns ($\chi 2 = 0$, $p = 1.000$); for prepositions ($\chi 2 = 0.05$, $p = .827$); and for pronouns ($\chi 2 = 0.37$, $p = .263$). There was also no significant difference in the comprehensibility ratings between NS and NSS for all major categories, taken together ($\chi 2 = 1.25$, $p = .263$).

Chi-Square Tests

Target Category		Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Article	Pearson Chi-Square	1.677[c]	1	.195		
	Continuity Correction[b]	1.165	1	.281		
	Likelihood Ratio	1.687	1	.194		
	Fisher's Exact Test				.280	.140
	N of Valid Cases	120				
Noun	Pearson Chi-Square	.000[d]	1	1.000		
	Continuity Correction[b]	.000	1	1.000		
	Likelihood Ratio	.000	1	1.000		
	Fisher's Exact Test				1.000	.628
	N of Valid Cases	120				
Preposition	Pearson Chi-Square	.048[e]	1	.827		
	Continuity Correction[b]	.000	1	1.000		
	Likelihood Ratio	.048	1	.827		
	Fisher's Exact Test				1.000	.500
	N of Valid Cases	120				
Pronoun	Pearson Chi-Square	.370[f]	1	.543		
	Continuity Correction[b]	.093	1	.761		
	Likelihood Ratio	.372	1	.542		
	Fisher's Exact Test				.762	.381
	N of Valid Cases	120				
Total	Pearson Chi-Square	1.253[a]	1	.263		
	Continuity Correction[b]	.990	1	.320		
	Likelihood Ratio	1.255	1	.263		
	Fisher's Exact Test				.320	.160
	N of Valid Cases	480				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 38.50.
b. Computed only for a 2x2 table
c. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.00.
d. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.00.
e. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.50.
f. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.00.

L1 * Rating2 * Target Category Crosstabulation

Target Category				Rating2 1-2	Rating2 3-4	Total
Article	L1	Arabic	Count	49	11	60
			% within L1	81.7%	18.3%	100.0%
		English	Count	43	17	60
			% within L1	71.7%	28.3%	100.0%
	Total		Count	92	28	120
			% within L1	76.7%	23.3%	100.0%
Noun	L1	Arabic	Count	55	5	60
			% within L1	91.7%	8.3%	100.0%
		English	Count	55	5	60
			% within L1	91.7%	8.3%	100.0%
	Total		Count	110	10	120
			% within L1	91.7%	8.3%	100.0%
Preposition	L1	Arabic	Count	47	13	60
			% within L1	78.3%	21.7%	100.0%
		English	Count	46	14	60
			% within L1	76.7%	23.3%	100.0%
	Total		Count	93	27	120
			% within L1	77.5%	22.5%	100.0%
Pronoun	L1	Arabic	Count	55	5	60
			% within L1	91.7%	8.3%	100.0%
		English	Count	53	7	60
			% within L1	88.3%	11.7%	100.0%
	Total		Count	108	12	120
			% within L1	90.0%	10.0%	100.0%
Total	L1	Arabic	Count	206	34	240
			% within L1	85.8%	14.2%	100.0%
		English	Count	197	43	240
			% within L1	82.1%	17.9%	100.0%
	Total		Count	403	77	480
			% within L1	84.0%	16.0%	100.0%